Form PTO 1390 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE (REV 5-93)	ATTORNEY'S DOCKET NUMBER P50937
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED / ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371	U.S. APPLICATION NO. (If known, see 37 C.F.R. 1.5) 09/980945

INTERNATIONAL APPLICATION NO. PCT/US00/15659	INTERNATIONAL FILING DATE 07 June 2000	PRIORITY DATE CLAIMED 07 June 1999

TITLE OF INVENTION

Novel FabH Enzyme Compositions Capable of Binding to Said Enzyme and Methods of Use Thereof

APPLICANT(S) FOR DO/EO/US

Cheryl Ann JANSON, and Xiayang QIU

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. [x] This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.

2. [ ] This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.

3. [x] This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).

4. [x] A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.

5. [x] A copy of the International Application as filed (35 U.S.C. 371(c)(2))
   a. [ ] is transmitted herewith (required only if not transmitted by the International Bureau).
   b. [ ] has been transmitted by the International Bureau.
   c. [x] is not required, as the application was filed in the United States Receiving Office (RO/US).

6. [ ] A translation of the International Application into English (35 U.S.C. 371(c)(2)).

7. [ ] Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
   a. [ ] are transmitted herewith (required only if not transmitted by the International Bureau).
   b. [ ] have been transmitted by the International Bureau.
   c. [ ] have not been made; however, the time limit for making such amendments has NOT expired.
   d. [ ] have not been made and will not be made.

8. [ ] A translation of the amendments to the claims under PCT Article 19 (35 U.S. C. 371(c)(3)).

9. [x] An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).

10. [ ] A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern other document(s) or information included:

11. [x] An Information Disclosure Statement under 37 C.F.R. 1.97 and 1.98; and Form PTO-1449.

12. [x] An assignment document for recording. A separate cover sheet in compliance with 37 C.F.R. 3.28 and 3.31 is included.

13. [ ] A FIRST preliminary amendment.

14. [ ] A SECOND or SUBSEQUENT preliminary amendment.

15. [x] Please amend the specification by inserting before the first line the sentence: This is a 371 of International Application PCT/US00/15659, filed 07 June 2000, which claims benefit from the following Provisional Application: 60/138,124, filed 07 June 1999.

16. [ ] A substitute specification.

17. [ ] A change of power of attorney and/or address letter.

18. [x] An Abstract on a separate sheet of paper.

19. [x] Other items or information: Sequence Listing in Computer-Readable Format; Paper Copy of Sequence Listing; Diskette; Statement to Support.
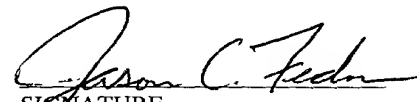
US APPLICATION NO. (if known see 37 CFR 1.50)	INTERNATIONAL APPLICATION NO.	ATTORNEYS DOCKET NO.
09/980945	PCT/US00/15659	P50937

20. [X] The following fees are submitted:	CALCULATIONS	PTO USE ONLY
Basic National Fee (37 C.F.R. 1.492(a)(1)-(5)):		
Search Report has been prepared by the EPO or JPO $890.00	**$710.00**	
International Preliminary Examination Fee paid to USPTO (37 CFR 1.492) $710.00		
No International Preliminary Examination Fee paid to USPTO (37 CFR 1.492) but international search fee paid to USPTO (37 CFR 1.445(a)(2)) $740.00		
Neither International Preliminary Examination Fee (37 CFR 1.492) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO...........$1,040.00		
International Preliminary Examination Fee paid to USPTO (37 CFR 1.492) and all claims satisfied provisions of PCT Article 33(2)-(4)................$100.00		

ENTER APPROPRIATE BASIC FEE AMOUNT =	**$710.00**	
Surcharge of **$130.00** for furnishing the oath or declaration later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492(e)).	**$0.00**	

Claims	Number Filed	Number Extra	Rate		
Total claims	**28 - 20 =**	**8**	8x $18.00	**$144.00**	
Independent claims	**8 - 3 =**	**5**	5x $84.00	**$420.00**	
Multiple dependent claims (if applicable)			+ $280.00	**$280.00**	

TOTAL OF ABOVE CALCULATIONS =	**$1,554.00**	
Reduction by 1/2 for filing by small entity, if applicable. Verified Small Entity statement must also be filed. (Note 37 CFR 1.9, 1.27, 1.28).	**$**	
SUBTOTAL =	**$1,554.00**	
Processing fee of **$130.00** for furnishing the English translation later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492(f)) +	**$**	
TOTAL NATIONAL FEE =	**$1,554.00**	
	Amount to be refunded	$
	charged	$

a. ☐ A check in the amount of $_____ to cover the above fees is enclosed.

b. ☒ Please charge my Deposit Account No. 19-2570 in the amount of **$1,554.00** to cover the above fees.
     A duplicate copy of this sheet is enclosed.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 19-2570 . A duplicate copy of this sheet is enclosed.

d. ☒ General Authorization to charge any and all fees under 37 CFR 1.16 or 1.17, including petitions for extension of time relating to this application (37 CFR 1.136 (a)(3)).

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Janson, *et al.*	05 December 2001
International Application No.:	PCT/US00/15659	Group Art Unit: Unknown
International File Date:	07 June 2000	Examiner: Unknown
For:	Novel FabH Enzyme Compositions Capable of Binding to Said Enzyme and Method of Use Thereof	

STATEMENT TO SUPPORT FILING AND SUBMISSION IN ACCORDANCE WITH 37 CFR §§ 1.821 THROUGH 1.825
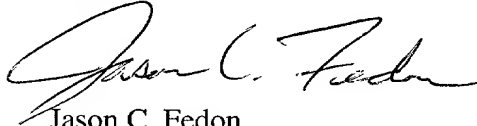
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Assistant Commissioner for Patents
Washington, D.C. 20231

(X)   I hereby state that the contents of the paper and computer readable copies of the Sequence Listing, submitted in accordance with **37 CFR §1.821(c)** and **(e)**, respectively, are the same.

(   )   I hereby state that the submission filed in accordance with **37 CFR §1.821 (g)** does not include new matter.

(   )   I hereby state that the submission filed in accordance with **37 CFR §1.821 (h)** does not include new matter or go beyond the disclosure in the international application as filed.

(   )   I hereby state that the amendments, made in accordance with **37 CFR §1.825 (a)**, included in the substitute sheet(s) of the Sequence Listing are supported in the application, as filed, at pages _____. I hereby state that the substitute sheet(s) of the Sequence Listing does (do) not include new matter.

(   )   I hereby state that the substitute copy of the computer readable form, submitted in accordance with **37 CFR §1.825(b)**, is the same as the amended Sequence Listing.

Serial No.: To Be Assigned
Group Art Unit No.: Unknown

( )   I hereby state that the substitute copy of the computer readable form, submitted in accordance with **37 CFR §1.825(d)**, is identical to that originally filed.

Respectfully submitted,

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NOVEL FABH ENZYME, COMPOSITIONS CAPABLE OF BINDING TO SAID ENZYME AND METHODS OF USE THEREOF

Technical Field of the Invention

The invention relates to the identification of a novel enzyme active site and

5   methods enabling the design and selection of inhibitors of that active site.

Background of the Invention

The pathway for the biosynthesis of saturated fatty acids is very similar in prokaryotes and eukaryotes. However, the organization of the biosynthetic apparatus is very different. Vertebrates possess a type I fatty acid synthase (FAS) in which all of the

10   enzymatic activities are encoded on one multifunctional polypeptide, the mature protein being a homodimer. The acyl carrier protein (ACP) is an integral part of the complex. In contrast, in most bacterial and plant FASs (type II) each of the reactions are catalyzed by distinct monofunctional enzymes and the ACP is a discrete protein. Mycobacteria are unique in that they possess both type I and II FASs. There therefore appears to be

15   considerable potential for selective inhibition of the bacterial systems by broad-spectrum antibacterial agents (Rock, C. & Cronan, J. 1996. *Biochimica et Biophysica Acta* 1302, 1-16; Jackowski, S. 1992. In *Emerging Targets in Antibacterial and Antifungal Chemotherapy*. Ed. J. Sutcliffe & N. Georgopapadakou. Chapman & Hall, New York; Jackowski, S. *et al.* (1989). *J. Biol. Chem.* 264, 7624-7629.)

20   The first step in the biosynthetic cycle is the condensation of malonyl-ACP with acetyl-CoA by FabH. Prior to this, malonyl-ACP is synthesized from ACP and malonyl-CoA by FabD, malonyl CoA:ACP transacylase. In subsequent rounds malonyl-ACP is condensed with the growing-chain acyl-ACP (FabB and FabF, synthases I and II respectively). The second step in the elongation cycle is ketoester reduction by NADPH-

25   dependent β-ketoacyl-ACP reductase (FabG). Subsequent dehydration by β-hydroxyacyl-ACP dehydrase (either FabA or FabZ) leads to trans-2-enoyl-ACP which is in turn converted to acyl-ACP by enoyl-ACP reductase (FabI). Further rounds of this cycle, adding two carbon atoms per cycle, eventually lead to palmitoyl-ACP whereupon the cycle is stopped largely due to feedback inhibition of FabH and I by palmitoyl-ACP (Heath, et al,

30   (1996), *J.Biol.Chem. 271*, 1833-1836).

Cerulenin and thiolactomycin are potent and selective inhibitors of bacterial fatty acid biosynthesis. Extensive work with these inhibitors has proved that this biosynthetic pathway is essential for bacterial viability. No marketed antibiotics are targeted against fatty acid biosynthesis, therefore it is unlikely that novel antibiotics would be rendered

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inactive by known antibiotic resistance mechanisms. There is an unmet need for developing new classes of antibiotic compounds, such as those that target FabH.

FabH enzymes are of interest as potential targets for antibacterial agents.

There is a need in the art for novel FabH enzyme active sites and catalytic
5   sequences to enable identification and structure-based design of inhibitors, which are useful in the treatment or prophylaxis of diseases, particularly diseases caused by bacteria which may share catalytic domains with those of the invention.

Summary of the Invention

In one aspect, the present invention provides a novel FabH enzyme active site
10   crystalline form.

In another aspect, the present invention provides a novel FabH composition characterized by the catalytic residues Cys112, His244 and Asn274.

In still another aspect, the present invention provides a novel FabH composition characterized by the active site of 33 amino acid residues (including the catalytic residues).
15   In yet another aspect, the invention provides a method for identifying inhibitors of · the compositions described above which methods involve the steps of: providing the coordinates of the structure of the invention to a computerized modeling system; identifying compounds which will bind to the structure; and screening the compounds identified for FabH inhibitory bioactivity.
20   In a further aspect, the present invention provides an inhibitor of the catalytic activity of any composition bearing the catalytic domain described above.

Another aspect of this invention includes machine readable media encoded with data representing the coordinates of the three-dimensional structure of the FabH crystal.

Other aspects and advantages of the present invention are described further in the
25   following detailed description of the preferred embodiments thereof.

Brief Description of the Drawings

Fig. 1 provides the atomic coordinates of the *E. coli* FabH dimer.

Fig. 2 provides the atomic coordinates of the *E. coli* FabH monomer in complex with acetyl-CoA.
30   Fig. 3 provides a projection of the ribbon diagram of the *E. coli* FabH dimer. The two monomers are drawn with a light or dark gray shading. The catalytic Cys112 is shown in dark ball-and-stick model.

Fig. 4 provides the ribbon diagram of the *E. coli* FabH monomer with the catalytic residue Cys112 is shown in dark ball-and-stick model. The N- and C-termini are labeled.

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Fig. 5 provides the stereoview of the α-carbon superposition between the structures of FabH and FabF. FabH is drawn in a thin black line and FabF in a thick gray line.

Fig. 6 provides the ribbon diagram of the *E. coli* FabH monomer with acetylated Cys112 and the CoA molecule in black ball-and-stick model. The orientation of the view is the same as that of Fig. 4.

Fig. 7 provides the superposition of the *E. coli* FabH catalytic residues in comparison to those of FabF. FabH is drawn in thick gray lines and FabF in thin black lines. FabH residues are label Cys112, His244 and Asn274, which corresponds to Cys163, His303 and His340, respectively.

Detailed Description of the Invention

The present invention provides a novel *E. coli* FabH crystalline structure, a novel FabH active site, and methods of use of the crystalline form and active site to identify FabH inhibitor compounds (peptide, peptidomimetic or synthetic compositions) characterized by the ability to competitively inhibit binding to the active site of a FabH enzyme. Also provided herein is a novel FabH crystalline structure in complex with the substrate acetyl-CoA, and the identification of acetyl-CoA interacting residues in FabH.

I.   The Novel FabH Crystalline Three-Dimensional Structure

The present invention provides a novel FabH crystalline structure based on the *E. coli* FabH. The amino acid sequences of the FabH are provided in Table 1 as SEQ ID NO:1.

TABLE 1

Met Tyr Thr Lys Ile Ile Gly Thr Gly Ser Tyr Leu Pro Glu Gln			
1	5	10	15

Val Arg Thr Asn Ala Asp Leu Glu Lys Met Val Asp Thr Ser Asp			
16	20	25	30
Glu Trp Ile Val Thr Arg Thr Gly Ile Arg Glu Arg His Ile Ala			
31	35	40	45
Ala Pro Asn Glu Thr Val Ser Thr Met Gly Phe Glu Ala Ala Thr			
46	50	55	60
Arg Ala Ile Glu Met Ala Gly Ile Glu Lys Asp Gln Ile Gly Leu			
61	65	70	75
Ile Val Val Ala Thr Thr Ser Ala Thr His Ala Phe Pro Ser Ala			

76   80   85   90

Ala Cys Gln Ile Gln Ser Met Leu Gly Ile Lys Gly Cys Pro Ala

91   95   100   105

Phe Asp Val Ala Ala Ala Cys Ala Gly Phe Thr Tyr Ala Leu Ser

5   106   110   115   120

Val Ala Asp Gln Tyr Val Lys Ser Gly Ala Val Lys Tyr Ala Leu

121   125   130   135

Val Val Gly Ser Asp Val Leu Ala Arg Thr Cys Asp Pro Thr Asp

136   140   145   150

10 Arg Gly Thr Ile Ile Ile Phe Gly Asp Gly Ala Gly Ala Ala Val

151   155   160   165

Leu Ala Ala Ser Glu Glu Pro Gly Ile Ile Ser Thr His Leu His

166   170   175   180

Ala Asp Gly Ser Tyr Gly Glu Leu Leu Thr Leu Pro Asn Ala Asp

15 181   185   190   195

Arg Val Asn Pro Glu Asn Ser Ile His Leu Thr Met Ala Gly Asn

196   200   205   210

Glu Val Phe Lys Val Ala Val Thr Glu Leu Ala His Ile Val Asp

211   215   220   225

20 Glu Thr Leu Ala Ala Asn Asn Leu Asp Arg Ser Gln Leu Asp Trp

226   230   235   240

Leu Val Pro His Gln Ala Asn Leu Arg Ile Ile Ser Ala Thr Ala

241   245   250   255

Lys Lys Leu Gly Met Ser Met Asp Asn Val Val Val Thr Leu Asp

25 256   260   265   270

Arg His Gly Asn Thr Ser Ala Ala Ser Val Pro Cys Ala Leu Asp   .

271   275   280   285

Glu Ala Val Arg Asp Gly Arg Ile Lys Pro Gly Gln Leu Val Leu

286   290   295   300

30 Leu Glu Ala Phe Gly Gly Gly Phe Thr Trp Gly Ser Ala Leu Val Arg Phe

301   305   310   317

As illustrated herein, the crystal structure is a tightly associated FabH dimer. Each monomer has two structural domains: the N-terminal domain (residues 1-170 of SEQ ID

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NO:1) and the C-terminal domain (residues 171-317 of SEQ ID NO:1). The two domains are similar in their overall fold: each contains a 5-stranded β-sheet sandwiched between α-helices and covered by other β-strands, α-helices and loops. The structural similarity between the two halves of the protein indicates that FabH is probably evolved from two

5   genes of similar origin. The active site of FabH is at the center of the FabH monomer, formed at the junction of the N- and C-terminal domains. While the core architecture of the *E. coli* FabH bears some similarity to that of the FabF (Huang, et al, (1998), *EMBO J. 17*, 1183-1191), large differences exit in the atomic positions of the core β-strands, and the structures outside of the core β-strand are completely different. With amino acid sequence

10   identity between FabH and FabF being below 20%, the large differences are well expected. Therefore, the crystalline structure *of E. coli* FabH is novel.

As described above, the *E. coli* FabH is a dimer, each monomer contains an active site. The dimer formation is essential for the FabH activity because the active site of a monomer is comprised of at least Phe87 of the other monomer in the dimer. The present

15   invention provides both a crystalline monomer and dimer structure of *E. coli* FabH. Inhibitors that perturb or interact with this dimer interface are another target for the design and selection of anti-bacterial agents.

According to the present invention, the crystal structure of *E. coli* FabH has been resolved at 2.0 Å (crystal form 1), and its selenomethionine mutant protein in complex with

20   acetyl-CoA has been determined at 1.9 Å (crystal form 2). The structure was determined using the methods of MAD phasing and molecular replacement, and refined to R-factors of 18.9% and 27%, respectively.

Further refinement of the atomic coordinates will change the numbers in Figure 1-2 and Tables I - III, refinement of the crystal structure from another crystal form will result in

25   a new set of coordinates. However, distances and angles in Tables II will remain the same within experimental errors, and relative conformation of residues in the active site will remain the same within experimental error. For example, the two independently determined monomers in our crystal form 1 and the monomer in crystal form 2 do not have identical numerical coordinates, but the structures of these three monomers have very similar structures, and the spatial relationship between amino acid residues are considered the same

30   structures, and the spatial relationship between amino acid residues are considered the same within experimental error. In fact, we would consider any structure that can be superimposed onto that of FabH with an rms error of less than 1.5 Å on α-carbon atoms being a close structural homologue and the same rms error but over all protein atoms being an identical structure. Figure 1 provides the atomic coordinates of the *E. coli* FabH dimer,

which contains 634 amino acids. Figure 2 provides the atomic coordinates of the *E. coli* FabH monomer in complex with acetyl-CoA, which contains 317 amino acids. The FabH enzyme is characterized by an active site which preferably contains a binding site for the first substrate acetyl-CoA and the second substrate malonyl-ACP. The catalytic residues in

5   FabH are Cys112, His244 and Asn274, compared to Cys163, His303 and His340 in FabF. The difference in catalytic residues is not only limited to their amino acid identity (His340 to Asn274 change), but also their relative spatial arrangement. While FabH Cys112 and Asn274 can be well superimposed onto FabF Cys163 and His340, His244 of FabH occupies a very different position from that of His303 of FabF. This indicated the catalytic

10 mechanisms of the two enzymes are very different. The crystal structure described herein was solved in the presence and absence of acetyl-CoA. We identified that the catalytic Cys112 has been covalently aceytlated, and the product CoA is still bound to the active site. The bound CoA enabled us to identify the active site cavity, which is long and narrow and shaped nicely to bind the β-mercaptoethylamine-patotheinate arm of CoA. The structure of

15 the acetyl-CoA complex also revealed all the key residues that are interacting with CoA and lining the active site, which is identified as a set of 33 amino acid residues listed in Table I. For example, the adenine part of CoA is sandwiched between the side chains of Arg151 and Trp32. Our structures are determined in the absence of malonyl-ACP. However, the same acetyl-CoA binding cavity should bind malonyl-ACP as well because their active site

20 binding regions are very similar and there is no apparent additional entrance to the active site. Moreover, while the FabH molecular surface in general negatively charged, a region just outside of the active site cavity is positively charge. This surface is mainly comprised of three α-helices (30-37, 209-231 and 248-258) and contains a number of positively charged amino acids (Arg36, Arg40, Lys214, His222, Arg235 Arg249, Lys256, Lys257).

25 Since the acyl-carrier protein (ACP) is known to be very acidic or negatively charged, it is reasonable to assume this surface being the ACP binding surface.

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Table I provides the the atomic coordinates of the apo *E. coli* FabH structure in the active site (in crystal form 1). Solvent molecules are omitted here for clarity, but can be found in Fig. 1. Residue 487 is Phe87 from the other monomer.

TABLE I

ATOM		RESIDUE		X	Y	Z	Occ	B
1	N	THR	28	-24.151	18.846	61.990	1.00	36.45
2	CA	THR	28	-23.735	19.054	60.610	1.00	36.69
3	CB	THR	28	-22.196	19.086	60.565	1.00	32.66
4	OG1	THR	28	-21.760	20.076	59.636	1.00	33.79
5	CG2	THR	28	-21.645	17.737	60.183	1.00	27.40
6	C	THR	28	-24.238	17.990	59.627	1.00	38.85
7	O	THR	28	-24.732	16.923	60.023	1.00	42.97
8	N	TRP	32	-24.091	20.068	53.681	1.00	30.06
9	CA	TRP	32	-23.725	21.413	54.092	1.00	28.93
10	CB	TRP	32	-24.277	21.708	55.486	1.00	29.27
11	CG	TRP	32	-24.036	23.126	55.939	1.00	31.13
12	CD2	TRP	32	-22.895	23.622	56.644	1.00	32.44
13	CE2	TRP	32	-23.118	25.005	56.890	1.00	35.25
14	CE3	TRP	32	-21.707	23.038	57.096	1.00	32.45
15	CD1	TRP	32	-24.880	24.197	55.779	1.00	33.86
16	NE1	TRP	32	-24.333	25.331	56.351	1.00	35.49
17	CZ2	TRP	32	-22.200	25.800	57.565	1.00	35.24
18	CZ3	TRP	32	-20.793	23.832	57.765	1.00	34.43
19	CH2	TRP	32	-21.046	25.197	57.994	1.00	36.72
20	C	TRP	32	-22.203	21.582	54.091	1.00	27.24
21	O	TRP	32	-21.675	22.617	53.674	1.00	26.75
22	N	ILE	33	-21.503	20.566	54.581	1.00	26.32
23	CA	ILE	33	-20.042	20.617	54.642	1.00	25.89
24	CB	ILE	33	-19.459	19.370	55.333	1.00	25.18
25	CG2	ILE	33	-17.925	19.444	55.366	1.00	26.64
26	CG1	ILE	33	-20.024	19.253	56.744	1.00	18.01
27	CD1	ILE	33	-19.621	18.008	57.421	1.00	19.10
28	C	ILE	33	-19.432	20.755	53.258	1.00	24.76
29	O	ILE	33	-18.630	21.650	53.022	1.00	23.20
30	N	ARG	36	-20.198	24.159	51.621	1.00	26.35
31	CA	ARG	36	-19.545	25.296	52.237	1.00	27.73
32	CB	ARG	36	-20.083	25.473	53.649	1.00	34.96
33	CG	ARG	36	-19.562	26.715	54.326	1.00	47.48
34	CD	ARG	36	-20.581	27.250	55.290	1.00	56.04
35	NE	ARG	36	-21.775	27.729	54.600	1.00	63.48
36	CZ	ARG	36	-22.490	28.780	54.996	1.00	67.12
37	NH1	ARG	36	-23.564	29.153	54.303	1.00	67.75
38	NH2	ARG	36	-22.127	29.465	56.082	1.00	68.27

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TABLE I - Cont.

	ATOM		RESIDUE		X	Y	Z	Occ	B
	39	C	ARG	36	-18.014	25.292	52.233	1.00	23.26
	40	O	ARG	36	-17.386	26.346	52.208	1.00	21.26
5	41	N	THR	37	-17.423	24.103	52.214	1.00	20.79
	42	CA	THR	37	-15.973	23.969	52.258	1.00	19.72
	43	CB	THR	37	-15.549	23.164	53.509	1.00	20.01
	44	OG1	THR	37	-16.014	21.812	53.384	1.00	17.59
	45	CG2	THR	37	-16.157	23.752	54.765	1.00	18.21
10	46	C	THR	37	-15.363	23.272	51.047	1.00	20.77
	47	O	THR	37	-14.234	23.571	50.657	1.00	20.98
	48	N	CYS	112	-0.698	28.695	58.467	1.00	12.58
	49	CA	CYS	112	-0.984	28.096	57.174	1.00	11.86
	50	CB	CYS	112	-2.457	28.264	56.808	1.00	10.86
15	51	SG	CYS	112	-3.580	27.460	57.935	1.00	22.06
	52	C	CYS	112	-0.126	28.620	56.037	1.00	10.86
	53	O	CYS	112	-0.003	27.939	55.025	1.00	13.89
	54	N	LEU	142	-3.033	20.066	62.705	1.00	16.58
	55	CA	LEU	142	-4.063	20.954	63.207	1.00	17.95
20	56	CB	LEU	142	-4.281	22.159	62.287	1.00	15.72
	57	CG	LEU	142	-3.100	23.125	62.126	1.00	18.13
	58	CD1	LEU	142	-3.628	24.499	61.738	1.00	14.84
	59	CD2	LEU	142	-2.246	23.204	63.415	1.00	12.26
	60	C	LEU	142	-5.396	20.321	63.598	1.00	17.45
25	61	O	LEU	142	-6.111	20.883	64.417	1.00	17.68
	62	N	ARG	151	-17.927	23.092	65.249	1.00	22.20
	63	CA	ARG	151	-18.230	22.887	63.841	1.00	25.49
	64	CB	ARG	151	-19.699	23.217	63.534	1.00	24.14
	65	CG	ARG	151	-20.051	22.998	62.052	1.00	33.87
30	66	CD	ARG	151	-21.530	23.158	61.748	1.00	37.44
	67	NE	ARG	151	-21.991	24.545	61.780	1.00	41.79
	68	CZ	ARG	151	-23.272	24.897	61.737	1.00	44.63
	69	NH1	ARG	151	-23.612	26.173	61.771	1.00	46.51
	70	NH2	ARG	151	-24.219	23.970	61.666	1.00	47.88
35	71	C	ARG	151	-17.304	23.634	62.868	1.00	26.00
	72	O	ARG	151	-16.686	23.018	61.992	1.00	26.64
	73	N	GLY	152	-17.164	24.940	63.077	1.00	24.63
	74	CA	GLY	152	-16.353	25.769	62.201	1.00	23.08
	75	C	GLY	152	-14.912	25.371	61.944	1.00	22.21
40	76	O	GLY	152	-14.366	25.679	60.880	1.00	21.32
	77	N	ILE	155	-14.484	20.649	60.878	1.00	18.82
	78	CA	ILE	155	-14.866	20.149	59.564	1.00	18.77
	79	CB	ILE	155	-16.223	20.733	59.071	1.00	17.77
	80	CG2	ILE	155	-17.365	20.321	60.018	1.00	12.79

TABLE I - Cont.

	ATOM		RESIDUE		X	Y	Z	Occ	B
	81	CG1	ILE	155	-16.127	22.249	58.924	1.00	15.46
	82	CD1	ILE	155	-17.339	22.892	58.331	1.00	20.95
5	83	C	ILE	155	-13.823	20.489	58.531	1.00	18.45
	84	O	ILE	155	-13.819	19.909	57.461	1.00	21.51
	85	N	ILE	156	-12.958	21.450	58.819	1.00	18.70
	86	CA	ILE	156	-11.985	21.825	57.812	1.00	19.10
	87	CB	ILE	156	-11.999	23.375	57.499	1.00	24.79
10	88	CG2	ILE	156	-13.391	23.974	57.563	1.00	23.59
	89	CG1	ILE	156	-11.095	24.139	58.438	1.00	24.77
	90	CD1	ILE	156	-9.886	24.631	57.730	1.00	27.97
	91	C	ILE	156	-10.544	21.338	57.935	1.00	18.32
	92	O	ILE	156	-9.922	21.071	56.918	1.00	18.31
15	93	N	PHE	157	-10.005	21.200	59.142	1.00	16.26
	94	CA	PHE	157	-8.611	20.780	59.280	1.00	15.33
	95	CB	PHE	157	-7.984	21.371	60.551	1.00	15.71
	96	CG	PHE	157	-7.868	22.858	60.523	1.00	19.05
	97	CD1	PHE	157	-8.814	23.654	61.158	1.00	19.74
20	98	CD2	PHE	157	-6.844	23.476	59.814	1.00	15.77
	99	CE1	PHE	157	-8.737	25.057	61.076	1.00	21.28
	100	CE2	PHE	157	-6.761	24.855	59.727	1.00	11.63
	101	CZ	PHE	157	-7.701	25.650	60.351	1.00	17.65
	102	C	PHE	157	-8.278	19.286	59.190	1.00	16.07
25	103	O	PHE	157	-9.045	18.413	59.622	1.00	17.36
	104	N	LEU	189	-7.786	34.391	64.172	1.00	19.01
	105	CA	LEU	189	-7.338	33.021	63.922	1.00	19.46
	106	CB	LEU	189	-6.897	32.907	62.463	1.00	23.06
	107	CG	LEU	189	-6.422	31.587	61.872	1.00	23.21
30	108	CD1	LEU	189	-7.435	30.493	62.157	1.00	24.24
	109	CD2	LEU	189	-6.253	31.811	60.355	1.00	25.52
	110	C	LEU	189	-6.164	32.746	64.850	1.00	18.26
	111	O	LEU	189	-5.082	33.338	64.688	1.00	15.62
	112	N	LEU	205	-7.765	25.549	68.834	1.00	19.58
35	113	CA	LEU	205	-7.699	26.448	67.677	1.00	19.69
	114	CB	LEU	205	-7.475	25.601	66.398	1.00	19.66
	115	CG	LEU	205	-7.104	26.238	65.052	1.00	19.36
	116	CD1	LEU	205	-6.309	25.259	64.201	1.00	18.01
	117	CD2	LEU	205	-8.366	26.671	64.321	1.00	18.66
40	118	C	LEU	205	-8.996	27.273	67.597	1.00	17.98
	119	O	LEU	205	-10.088	26.731	67.804	1.00	20.78
	120	N	MET	207	-11.189	30.405	65.330	1.00	16.50
	121	CA	MET	207	-11.285	31.040	64.025	1.00	18.56
	122	CB	MET	207	-11.105	30.003	62.931	1.00	20.76

TABLE I - Cont.

	ATOM		RESIDUE		X	Y	Z	Occ	B
	123	CG	MET	207	-11.293	30.550	61.542	1.00	23.66
	124	SD	MET	207	-10.858	29.292	60.353	1.00	32.43
5	125	CE	MET	207	-12.262	28.166	60.555	1.00	31.26
	126	C	MET	207	-12.599	31.742	63.776	1.00	18.83
	127	O	MET	207	-13.666	31.152	63.934	1.00	19.82
	128	N	GLY	209	-14.190	32.425	61.134	1.00	20.42
	129	CA	GLY	209	-14.305	32.056	59.737	1.00	23.52
10	130	C	GLY	209	-14.623	33.114	58.701	1.00	24.44
	131	O	GLY	209	-13.771	33.456	57.884	1.00	26.52
	132	N	ASN	210	-15.839	33.640	58.738	1.00	23.37
	133	CA	ASN	210	-16.291	34.615	57.758	1.00	25.94
	134	CB	ASN	210	-17.724	35.006	58.035	1.00	24.49
15	135	CG	ASN	210	-18.633	33.818	58.029	1.00	25.13
	136	OD1	ASN	210	-18.680	33.068	57.061	1.00	25.86
	137	ND2	ASN	210	-19.325	33.603	59.130	1.00	25.81
	138	C	ASN	210	-15.426	35.831	57.639	1.00	26.62
	139	O	ASN	210	-15.214	36.334	56.545	1.00	27.59
20	140	N	VAL	212	-12.110	35.950	58.414	1.00	25.15
	141	CA	VAL	212	-10.808	35.645	57.793	1.00	25.13
	142	CB	VAL	212	-10.004	34.469	58.486	1.00	23.52
	143	CG1	VAL	212	-10.492	34.190	59.896	1.00	20.23
	144	CG2	VAL	212	-9.958	33.220	57.653	1.00	23.20
25	145	C	VAL	212	-10.971	35.405	56.272	1.00	23.49
	146	O	VAL	212	-10.095	35.769	55.493	1.00	20.62
	147	N	PHE	213	-12.115	34.859	55.853	1.00	22.05
	148	CA	PHE	213	-12.371	34.627	54.431	1.00	22.19
	149	CB	PHE	213	-13.718	33.954	54.244	1.00	20.95
30	150	CG	PHE	213	-14.116	33.771	52.794	1.00	23.47
	151	CD1	PHE	213	-14.758	34.788	52.101	1.00	22.38
	152	CD2	PHE	213	-13.833	32.587	52.132	1.00	21.51
	153	CE1	PHE	213	-15.098	34.634	50.784	1.00	23.71
	154	CE2	PHE	213	-14.173	32.423	50.813	1.00	26.06
35	155	CZ	PHE	213	-14.805	33.446	50.133	1.00	25.34
	156	C	PHE	213	-12.307	35.935	53.645	1.00	22.07
	157	O	PHE	213	-11.618	36.045	52.629	1.00	22.83
	158	N	ALA	216	-8.801	37.118	53.586	1.00	18.14
	159	CA	ALA	216	-7.964	36.216	52.808	1.00	19.00
40	160	CB	ALA	216	-8.183	34.775	53.218	1.00	17.94
	161	C	ALA	216	-8.146	36.371	51.303	1.00	17.97
	162	O	ALA	216	-7.166	36.285	50.563	1.00	16.52
	163	N	LEU	220	-4.879	37.537	49.135	1.00	15.55
	164	CA	LEU	220	-4.379	36.571	48.174	1.00	17.76

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TABLE I - Cont.

	ATOM		RESIDUE		$\underline{X}$	$\underline{Y}$	$\underline{Z}$	$\underline{Occ}$	$\underline{B}$
	165	CB	LEU	220	-5.127	35.233	48.275	1.00	15.75
	166	CG	LEU	220	-4.703	34.362	49.466	1.00	13.65
5	167	CD1	LEU	220	-5.621	33.177	49.608	1.00	13.89
	168	CD2	LEU	220	-3.278	33.915	49.310	1.00	9.45
	169	C	LEU	220	-4.491	37.186	46.769	1.00	17.28
	170	O	LEU	220	-3.618	36.957	45.932	1.00	20.62
	171	N	HIS	244	-3.012	27.197	48.689	1.00	18.90
10	172	CA	HIS	244	-3.165	26.587	49.988	1.00	17.18
	173	CB	HIS	244	-2.914	27.594	51.111	1.00	17.15
	174	CG	HIS	244	-3.178	27.035	52.465	1.00	17.42
	175	CD2	HIS	244	-2.579	26.015	53.138	1.00	14.15
	176	ND1	HIS	244	-4.285	27.385	53.212	1.00	16.36
15	177	CE1	HIS	244	-4.370	26.596	54.264	1.00	16.12
	178	NE2	HIS	244	-3.354	25.760	54.244	1.00	19.14
	179	C	HIS	244	-4.631	26.151	49.971	1.00	15.41
	180	O	HIS	244	-5.503	26.936	49.591	1.00	14.10
	181	N	ALA	246	-7.440	26.051	51.721	1.00	19.76
20	182	CA	ALA	246	-8.240	26.512	52.864	1.00	20.02
	183	CB	ALA	246	-8.166	28.017	52.975	1.00	22.28
	184	C	ALA	246	-9.687	26.075	52.772	1.00	23.08
	185	O	ALA	246	-10.281	25.620	53.759	1.00	23.37
	186	N	ASN	247	-10.280	26.349	51.615	1.00	21.20
25	187	CA	ASN	247	-11.645	25.983	51.311	1.00	22.48
	188	CB	ASN	247	-12.653	26.733	52.190	1.00	24.84
	189	CG	ASN	247	-12.700	28.195	51.888	1.00	26.54
	190	OD1	ASN	247	-13.343	28.618	50.942	1.00	32.63
	191	ND2	ASN	247	-12.016	28.987	52.686	1.00	31.62
30	192	C	ASN	247	-11.824	26.292	49.825	1.00	23.43
	193	O	ASN	247	-11.076	27.097	49.249	1.00	23.61
	194	N	ARG	249	-14.126	27.939	48.119	1.00	27.79
	195	CA	ARG	249	-14.566	29.305	47.811	1.00	28.98
	196	CB	ARG	249	-15.376	29.912	48.966	1.00	34.43
35	197	CG	ARG	249	-16.577	29.118	49.433	1.00	45.16
	198	CD	ARG	249	-17.307	29.859	50.557	1.00	52.72
	199	NE	ARG	249	-18.235	30.862	50.037	1.00	60.09
	200	CZ	ARG	249	-18.607	31.976	50.675	1.00	62.73
	201	NH1	ARG	249	-19.469	32.803	50.096	1.00	64.82
40	202	NH2	ARG	249	-18.112	32.290	51.867	1.00	60.24
	203	C	ARG	249	-13.369	30.208	47.562	1.00	24.80
	204	O	ARG	249	-13.358	31.007	46.629	1.00	24.09
	205	N	ILE	250	-12.393	30.135	48.453	1.00	24.48
	206	CA	ILE	250	-11.201	30.951	48.306	1.00	24.93

TABLE I - Cont.

	ATOM		RESIDUE		$\underline{X}$	$\underline{Y}$	$\underline{Z}$	Occ	B
	207	CB	ILE	250	-10.365	30.965	49.621	1.00	26.91
5	208	CG2	ILE	250	-8.880	31.128	49.350	1.00	22.69
	209	CG1	ILE	250	-10.902	32.091	50.506	1.00	32.57
	210	CD1	ILE	250	-10.216	32.245	51.828	1.00	38.42
	211	C	ILE	250	-10.391	30.533	47.076	1.00	23.12
	212	O	ILE	250	-10.024	31.380	46.265	1.00	20.24
10	213	N	ASN	274	-7.884	20.993	55.104	1.00	16.04
	214	CA	ASN	274	-6.887	22.042	55.213	1.00	16.17
	215	CB	ASN	274	-7.524	23.307	55.790	1.00	16.71
	216	CG	ASN	274	-6.524	24.433	56.031	1.00	15.26
	217	OD1	ASN	274	-5.290	24.259	55.970	1.00	14.69
15	218	ND2	ASN	274	-7.058	25.607	56.319	1.00	17.12
	219	C	ASN	274	-5.800	21.538	56.144	1.00	18.93
	220	O	ASN	274	-6.016	21.456	57.366	1.00	18.02
	221	N	SER	276	-2.883	23.010	56.745	1.00	14.34
	222	CA	SER	276	-1.996	24.086	57.152	1.00	14.51
20	223	CB	SER	276	-1.772	23.993	58.686	1.00	16.80
	224	OG	SER	276	-1.051	25.104	59.218	1.00	17.07
	225	C	SER	276	-0.675	24.141	56.352	1.00	13.90
	226	O	SER	276	-0.719	24.199	55.132	1.00	15.64
	227	N	ALA	303	-0.360	31.072	49.683	1.00	15.48
25	228	CA	ALA	303	-0.934	30.617	50.937	1.00	13.31
	229	CB	ALA	303	0.045	29.692	51.624	1.00	11.10
	230	C	ALA	303	-1.261	31.801	51.853	1.00	12.59
	231	O	ALA	303	-0.614	32.842	51.789	1.00	11.22
	232	N	PHE	304	-2.299	31.642	52.666	1.00	14.82
30	233	CA	PHE	304	-2.726	32.650	53.626	1.00	15.34
	234	CB	PHE	304	-4.075	33.248	53.207	1.00	17.57
	235	CG	PHE	304	-4.561	34.355	54.119	1.00	23.99
	236	CD1	PHE	304	-5.356	34.060	55.243	1.00	22.77
	237	CD2	PHE	304	-4.220	35.687	53.866	1.00	22.34
35	238	CE1	PHE	304	-5.794	35.064	56.089	1.00	19.22
	239	CE2	PHE	304	-4.657	36.705	54.712	1.00	24.60
	240	CZ	PHE	304	-5.447	36.389	55.826	1.00	19.92
	241	C	PHE	304	-2.831	31.946	54.982	1.00	15.89
	242	O	PHE	304	-3.176	30.768	55.041	1.00	14.69
40	243	N	GLY	305	-2.490	32.637	56.065	1.00	14.20
	244	CA	GLY	305	-2.583	32.002	57.363	1.00	13.74
	245	C	GLY	305	-2.765	32.889	58.578	1.00	13.32
	246	O	GLY	305	-2.788	34.115	58.496	1.00	12.57
	247	N	GLY	306	-2.856	32.235	59.727	1.00	17.80

TABLE I - Cont.

	ATOM		RESIDUE		$\underline{X}$	$\underline{Y}$	$\underline{Z}$	$\underline{Occ}$	$\underline{B}$
	248	CA	GLY	306	-3.033	32.929	60.990	1.00	17.87
	249	C	GLY	306	-1.928	33.892	61.357	1.00	19.45
5	250	O	GLY	306	-0.758	33.751	60.965	1.00	19.00
	251	N	PHE	487	0.118	30.521	66.721	1.00	16.05
	252	CA	PHE	487	-0.254	31.597	65.800	1.00	15.49
	253	CB	PHE	487	-0.539	31.168	64.330	1.00	10.60
	254	CG	PHE	487	-1.559	30.100	64.167	1.00	9.77
10	255	CD1	PHE	487	-1.169	28.788	63.944	1.00	11.44
	256	CD2	PHE	487	-2.916	30.410	64.157	1.00	12.27
	257	CE1	PHE	487	-2.109	27.796	63.715	1.00	10.46
	258	CE2	PHE	487	-3.878	29.416	63.925	1.00	11.90
	259	CZ	PHE	487	-3.477	28.111	63.705	1.00	9.96
15	260	C	PHE	487	-1.381	32.376	66.460	1.00	13.45
	261	O	PHE	487	-2.233	31.776	67.132	1.00	15.58

Table II provides the distances between (D) atoms of the active site residues that are within 5.0 angstroms of one another as defined by Table I.

20   **TABLE II**

	Atom 1	Atom 2	Distance Between (D=)		Atom 1	Atom 2	Between (D=)
	28CA	151CD	4.796		32N	33CA	4.198
25	28CB	33CD1	4.204		32N	33C	4.728
	28CB	151CD	4.292		32N	33CB	4.967
	28CB	33CG1	4.398	45	32CA	33N	2.428
	28CB	151CG	4.703		32CA	33CA	3.808
	28OG1	33CG1	3.472		32CA	33C	4.422
30	28OG1	33CD1	3.709		32CA	33CB	4.890
	28OG1	151CD	3.743		32CB	33N	3.133
	28OG1	32CE3	3.902	50	32CB	33CA	4.454
	28OG1	151CG	4.159		32CG	33N	3.849
	28OG1	32CZ3	4.306		32CG	33CA	4.892
35	28OG1	155CG2	4.418		32CD2	33N	3.941
	28OG1	32CD2	4.776		32CD2	36CB	4.506
	28OG1	33CB	4.930	55	32CD2	36CD	4.511
	28OG1	151NE	4.962		32CD2	33CA	4.602
	28CG2	33CD1	3.435		32CD2	36NE	4.722
40	28CG2	33CG1	4.093		32CE2	36CD	3.747
	32N	33N	2.785		32CE2	36NE	3.804

	32CE2	36CZ	4.270		32CZ3	33CG1	4.754
	32CE2	36CB	4.465		32CZ3	151CZ	4.802
	32CE2	36NH2	4.640	45	32CH2	36CD	3.427
	32CE2	36CG	4.706		32CH2	151NE	3.956
5	32CE2	151CZ	4.851		32CH2	36CG	4.238
	32CE2	36NH1	4.909		32CH2	36NE	4.297
	32CE3	33N	3.532		32CH2	151CD	4.299
	32CE3	33CA	3.828	50	32CH2	151CZ	4.365
	32CE3	33CG1	4.157		32CH2	155CD1	4.378
10	32CE3	36CB	4.522		32CH2	36CB	4.459
	32CE3	155CD1	4.542		32CH2	151NH1	4.669
	32CE3	33CB	4.649		32CH2	151CG	4.722
	32CE3	151CD	4.657	55	32CH2	36NH2	4.800
	32CE3	36CD	4.719		32CH2	36CZ	4.890
15	32CE3	151NE	4.929		32C	33CA	2.430
	32CD1	36NE	4.848		32C	33C	3.009
	32NE1	36NE	3.919		32C	33O	3.730
	32NE1	36CZ	4.139	60	32C	33CB	3.737
	32NE1	36CD	4.346		32C	36N	4.094
20	32NE1	36NH1	4.404		32C	33CG1	4.149
	32NE1	36NH2	4.693		32C	36CB	4.453
	32CZ2	36CD	3.146		32C	36CA	4.929
	32CZ2	36NE	3.563	65	32C	33CG2	4.950
	32CZ2	36CZ	3.945		32O	33N	2.249
25	32CZ2	36NH2	3.954		32O	33CA	2.757
	32CZ2	36CG	4.276		32O	33C	2.945
	32CZ2	151CZ	4.401		32O	36N	2.962
	32CZ2	151NE	4.403	70	32O	33O	3.261
	32CZ2	151NH1	4.452		32O	36CB	3.270
30	32CZ2	36CB	4.464		32O	36CA	3.712
	32CZ2	36NH1	4.873		32O	33CB	4.267
	32CZ2	151NH2	4.924		32O	36CG	4.657
	32CZ2	151CD	4.993	75	32O	37N	4.735
	32CZ3	155CD1	3.624		32O	36C	4.758
35	32CZ3	151CD	4.106		32O	33CG1	4.844
	32CZ3	36CD	4.225		33N	36N	4.835
	32CZ3	151NE	4.250		33CA	37OG1	4.386
	32CZ3	151CG	4.430	80	33CA	36N	4.658
	32CZ3	36CB	4.488		33CA	36CB	4.957
40	32CZ3	33CA	4.545		33CA	37N	4.991
	32CZ3	33N	4.616		33CA	37CG2	4.994
	32CZ3	36CG	4.653		33CB	37OG1	4.651

	33CG2	37OG1	3.631		36CB	37CG2	4.430
	33CG2	155CB	4.276		36CB	37CA	4.592
	33CG2	155CD1	4.585	45	36CG	37N	3.982
	33CG2	155O	4.633		36CG	37CG2	4.535
5	33CG2	37CG2	4.695		36CG	37CA	4.970
	33CG2	155CG2	4.767		36C	37CA	2.432
	33CG2	37CB	4.789		36C	37CG2	3.497
	33CG2	155CG1	4.874	50	36C	37CB	3.498
	33CG1	155CG2	4.351		36C	37C	3.538
10	33CG1	155CB	4.696		36C	37OG1	4.176
	33CG1	155CD1	4.793		36C	37O	4.442
	33CD1	155CG2	4.145		36C	249CD	4.916
	33CD1	155CB	4.658	55	36C	249CG	4.954
	33C	37OG1	3.580		36O	37N	2.243
15	33C	36N	3.854		36O	37CA	2.766
	33C	37N	4.042		36O	37CG2	3.844
	33C	37CB	4.576		36O	37C	3.859
	33C	36CA	4.656	60	36O	249CD	3.882
	33C	37CG2	4.688		36O	37CB	3.898
20	33C	36CB	4.779		36O	249CG	4.005
	33C	37CA	4.826		36O	37O	4.477
	33C	36C	4.863		36O	247CB	4.749
	33O	37OG1	2.646	65	36O	247OD1	4.807
	33O	37N	2.851		36O	37OG1	4.881
25	33O	36N	3.274		37CA	247CB	4.321
	33O	37CB	3.467		37CA	247CA	4.867
	33O	37CA	3.608		37CB	156CG2	4.663
	33O	37CG2	3.684	70	37CB	247CB	4.782
	33O	36C	3.777		37CG2	155CD1	3.854
30	33O	36CA	3.840		37CG2	156CG2	3.941
	33O	36CB	4.138		37CG2	155CG1	4.422
	33O	37C	4.148		37CG2	156CB	4.991
	33O	36O	4.926	75	37C	247CB	4.542
	36N	37N	2.838		37C	247CA	4.609
35	36N	37CA	4.277		37C	247C	4.810
	36N	37C	4.949		37O	247CA	3.598
	36CA	37N	2.434		37O	247C	3.729
	36CA	37CA	3.811	80	37O	247CB	3.853
	36CA	37CG2	4.500		37O	247N	4.926
40	36CA	37CB	4.704		37O	247O	4.938
	36CA	37C	4.796		112N	276OG	3.686
	36CB	37N	3.318		112N	305CA	3.963

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	112N	306N	4.333			112SG	304O	4.414
	112N	305C	4.677			112SG	157CE2	4.485
	112N	304O	4.709		45	112SG	274CG	4.632
	112N	276CB	4.828			112SG	276N	4.659
5	112N	305N	4.952			112SG	305CA	4.685
	112N	276CA	4.966			112SG	276C	4.686
	112CA	276OG	3.624			112SG	244ND1	4.776
	112CA	276C	4.051		50	112SG	142CD1	4.820
	112CA	304O	4.061			112C	304O	3.861
10	112CA	276CA	4.136			112C	305CA	4.386
	112CA	305CA	4.225			112C	304C	4.415
	112CA	276O	4.408			112C	276C	4.524
	112CA	244NE2	4.434		55	112C	303CB	4.545
	112CA	276CB	4.443			112C	276O	4.551
15	112CA	244CE1	4.710			112C	244CD2	4.605
	112CA	304C	4.800			112C	305N	4.661
	112CA	244CD2	4.813			112C	244NE2	4.671
	112CA	305N	4.911		60	112C	276OG	4.831
	112CB	304O	3.148			112C	244CG	4.958
20	112CB	244CE1	3.594			112O	244CD2	3.728
	112CB	244NE2	3.694			112O	276O	3.809
	112CB	305CA	3.781			112O	303CB	3.827
	112CB	304C	4.127		65	112O	244NE2	4.073
	112CB	244ND1	4.129			112O	276C	4.079
25	112CB	276OG	4.216			112O	244CG	4.177
	112CB	276CA	4.217			112O	304O	4.251
	112CB	244CD2	4.306			112O	244CE1	4.632
	112CB	305N	4.436		70	112O	244ND1	4.683
	112CB	276C	4.515			112O	276CA	4.831
30	112CB	244CG	4.571			112O	244CB	4.890
	112CB	276CB	4.716			112O	304C	4.905
	112CB	276O	4.728			112O	304N	4.955
	112CB	306N	4.945		75	112O	303CA	4.975
	112CB	305C	4.962			142CA	157CB	4.754
35	112CB	274OD1	4.977			142CA	205CD1	4.956
	112SG	276OG	3.687			142CB	157CD2	3.797
	112SG	276CA	3.809			142CB	157CG	4.058
	112SG	244CE1	3.853		80	142CB	157CB	4.165
	112SG	276CB	3.982			142CB	205CD1	4.170
40	112SG	244NE2	4.070			142CB	157CE2	4.469
	112SG	274OD1	4.127			142CB	276CB	4.757
	112SG	274ND2	4.259			142CB	157CD1	4.905

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	142CG	276CB	3.788
	142CG	2760G	4.071
	142CG	205CD1	4.377
	142CG	157CD2	4.414
5	142CG	157CE2	4.706
	142CD1	276CB	3.608
	142CD1	2760G	3.655
	142CD1	205CD1	3.719
	142CD1	157CE2	3.740
10	142CD1	157CD2	3.885
	142CD1	487CZ	4.116
	142CD1	487CE1	4.134
	142CD1	157CZ	4.454
	142CD1	157CG	4.706
15	142CD1	276CA	4.885
	142CD2	487CE1	4.604
	142CD2	205CD1	4.620
	142CD2	2760G	4.759
	142CD2	276CB	4.818
20	142C	157CB	4.133
	142C	157CG	4.691
	1420	157CB	4.323
	1420	205CD1	4.386
	1420	157CG	4.706
25	151N	152N	2.952
	151N	152CA	4.351
	151CA	152N	2.436
	151CA	152CA	3.810
	151CA	152C	4.558
30	151CA	155CG2	4.685
	151CB	152N	3.099
	151CB	152CA	4.414
	151CG	152N	3.627
	151CG	155CG2	4.303
35	151CG	155CD1	4.606
	151CG	152CA	4.623
	151CD	152N	4.899
	151C	152CA	2.431
	151C	152C	3.097
40	151C	1520	4.095
	151C	155CG1	4.343
	151C	155CG2	4.371

	151C	155N	4.563
	151C	155CD1	4.597
45	151C	155CB	4.899
	1510	152N	2.258
	1510	152CA	2.779
	1510	152C	2.947
	1510	155CG1	3.212
50	1510	155CG2	3.411
	1510	155N	3.421
	1510	1520	3.701
	1510	155CD1	3.721
	1510	155CB	3.737
55	1510	155CA	4.176
	152CA	155CG1	4.815
	152CA	155CD1	4.922
	152C	207CE	4.094
	152C	155CG1	4.510
60	152C	156CG2	4.843
	152C	155N	4.860
	1520	207CE	3.274
	1520	156CG2	3.855
	1520	155CG1	4.323
65	1520	156CG1	4.363
	1520	156CB	4.727
	1520	155CD1	4.807
	1520	156N	4.911
	155N	156N	2.685
70	155N	156CA	4.127
	155N	156CG2	4.821
	155N	157N	4.835
	155N	156C	4.966
	155CA	156N	2.427
75	155CA	156CA	3.765
	155CA	156CG2	4.562
	155CA	156C	4.769
	155CA	156CB	4.784
	155CA	157N	4.991
80	155CB	156N	3.352
	155CB	156CA	4.554
	155CB	156CG2	4.561
	155CG2	156N	4.705
	155CG1	156N	3.270

	155CG1	156CG2	3.509
	155CG1	156CA	4.310
	155CG1	156CB	4.510
	155CD1	156CG2	4.165
5	155CD1	156N	4.638
	155C	156CA	2.383
	155C	156C	3.439
	155C	156CB	3.567
	155C	156CG2	3.643
10	155C	157N	3.931
	155C	156O	4.261
	155C	156CG1	4.558
	155O	156N	2.227
	155O	156CA	2.675
15	155O	156C	3.604
	155O	156CB	3.915
	155O	156CG2	4.089
	155O	156O	4.103
	155O	157N	4.363
20	156N	157N	2.981
	156N	157CA	4.422
	156CA	157N	2.466
	156CA	157CA	3.825
	156CA	157C	4.700
25	156CA	157O	4.854
	156CA	157CB	4.870
	156CA	157CD1	4.959
	156CA	274N	4.980
	156CB	157N	3.377
30	156CB	157CA	4.624
	156CB	246O	4.688
	156CB	274CB	4.791
	156CB	157CD1	4.859
	156CG2	157N	4.653
35	156CG1	157N	3.213
	156CG1	157CD1	3.583
	156CG1	157CE1	3.655
	156CG1	157CG	4.050
	156CG1	157CZ	4.179
40	156CG1	157CA	4.262
	156CG1	157CD2	4.517
	156CG1	274CB	4.523
	156CG1	157CE2	4.578
	156CG1	157CB	4.670
45	156CG1	207CE	4.697
	156CG1	274ND2	4.790
	156CG1	246O	4.975
	156CD1	274ND2	3.308
	156CD1	274CB	3.331
50	156CD1	157CZ	3.561
	156CD1	157CE1	3.563
	156CD1	157N	3.712
	156CD1	157CE2	3.715
	156CD1	157CD1	3.722
55	156CD1	274CG	3.772
	156CD1	157CD2	3.864
	156CD1	157CG	3.875
	156CD1	246O	4.111
	156CD1	157CA	4.343
60	156CD1	274CA	4.694
	156CD1	157CB	4.712
	156CD1	274N	4.913
	156CD1	274OD1	4.936
	156C	157N	1.329
65	156C	157CA	2.420
	156C	157C	3.305
	156C	157CB	3.660
	156C	157O	3.694
	156C	274N	3.900
70	156C	157CG	4.021
	156C	274CB	4.195
	156C	157CD1	4.329
	156C	274O	4.565
	156C	274CA	4.613
75	156C	157CD2	4.668
	156O	157N	2.229
	156O	157CA	2.717
	156O	274N	2.729
	156O	157C	3.324
80	156O	274CB	3.467
	156O	274CA	3.614
	156O	157O	3.892
	156O	274O	3.950
	156O	157CB	4.129

	1560	274C	4.220		157CZ	205CD1	4.113
	1560	157CG	4.518		157CZ	205CD2	4.153
	1560	274CG	4.862	45	157CZ	274CG	4.640
	1560	157CD2	4.863		157CZ	205CG	4.775
5	157N	2740	4.374		157CZ	207SD	4.820
	157N	274N	4.566		157C	2740	3.627
	157N	274CB	4.672		157C	274N	4.446
	157CA	2740	3.295	50	157C	274C	4.527
	157CA	274N	4.244		1570	2740	4.850
10	157CA	274C	4.279		189N	207CA	4.847
	157CA	274CB	4.444		189CA	207CA	4.417
	157CA	274CA	4.594		189CA	207N	4.864
	157CB	2740	3.745	55	189CA	207CB	4.928
	157CB	274C	4.921		189CA	487CE2	4.997
15	157CG	2740	3.919		189CB	306CA	4.135
	157CG	205CD1	4.661		189CB	212CG1	4.600
	157CG	274CB	4.767		189CB	487CE2	4.841
	157CG	274CG	4.946	60	189CB	306N	4.926
	157CD1	205CD1	4.256		189CB	487CD2	4.995
20	157CD1	205CD2	4.394		189CG	306CA	3.750
	157CD1	205CG	4.976		189CG	487CE2	3.924
	157CD2	2740	3.280		189CG	306N	4.212
	157CD2	274CG	3.915	65	189CG	487CD2	4.347
	157CD2	274CB	4.085		189CG	487CZ	4.911
25	157CD2	274ND2	4.099		189CG	207CG	4.991
	157CD2	274OD1	4.220		189CD1	207CB	3.783
	157CD2	274C	4.280		189CD1	207CG	3.907
	157CD2	205CD1	4.766	70	189CD1	207SD	4.051
	157CD2	274CA	4.819		189CD1	487CE2	4.116
30	157CE1	205CD2	3.643		189CD1	207CA	4.314
	157CE1	205CD1	3.963		189CD1	205CD2	4.490
	157CE1	205CG	4.458		189CD1	487CZ	4.872
	157CE1	207CE	4.729	75	189CD1	207N	4.916
	157CE1	207SD	4.791		189CD1	487CD2	4.942
35	157CE2	274ND2	3.503		189CD2	306CA	3.467
	157CE2	274CG	3.728		189CD2	306N	3.480
	157CE2	274OD1	4.078		189CD2	305C	4.060
	157CE2	2740	4.205	80	189CD2	3050	4.557
	157CE2	274CB	4.299		189CD2	305CA	4.739
40	157CE2	205CD1	4.515		189CD2	212CG2	4.797
	157CE2	274C	4.976		189CD2	212CG1	4.883
	157CZ	274ND2	4.083		189CD2	306C	4.903

	189CD2	487CE2	4.911		209N	212N	4.914
	189CD2	212CB	4.963		209CA	210N	2.421
	189C	487CD2	4.060	45	209CA	210CA	3.796
	189C	487CE2	4.144		209CA	212CG1	4.372
5	189C	4870	4.648		209CA	210C	4.462
	189C	306CA	4.974		209CA	212N	4.662
	1890	487CD2	3.681		209CA	210CB	4.826
	1890	4870	4.066	50	209CA	212CG2	4.959
	1890	487CE2	4.173		209CA	210CG	4.975
10	1890	487C	4.215		209C	210CA	2.434
	1890	306CA	4.247		209C	210C	3.026
	1890	306C	4.621		209C	210CB	3.693
	1890	487CG	4.813	55	209C	212N	3.800
	205CG	487CZ	4.299		209C	2100	3.920
15	205CG	487CE2	4.667		209C	210CG	4.126
	205CD1	487CZ	4.050		209C	213N	4.177
	205CD1	487CE2	4.824		209C	2100D1	4.376
	205CD1	487CE1	4.931	60	209C	212CG1	4.433
	205CD2	207CB	4.532		209C	213CB	4.625
20	205CD2	207N	4.789		209C	212CA	4.667
	205C	207N	4.445		209C	210ND2	4.747
	2050	207N	4.564		209C	212CG2	4.782
	207CA	209N	4.326	65	209C	212CB	4.818
	207CB	209N	4.314		209C	212C	4.948
25	207CB	209CA	4.966		2090	210N	2.245
	207CG	209N	3.475		2090	210CA	2.777
	207CG	209CA	3.821		2090	210C	2.905
	207CG	212CG1	4.074	70	2090	213N	2.972
	207CG	212CG2	4.903		2090	212N	3.043
30	207SD	209CA	4.461		2090	2100	3.487
	207SD	209N	4.640		2090	213CB	3.674
	207SD	212CG2	4.851		2090	212CA	3.685
	207SD	212CG1	4.933	75	2090	212C	3.773
	207CE	209CA	4.469		2090	212CG2	3.827
35	207CE	209N	4.711		2090	213CA	3.906
	207C	209N	3.159		2090	212CG1	3.916
	207C	209CA	4.396		2090	212CB	3.947
	2070	209N	3.120	80	2090	210CB	4.249
	2070	209CA	4.341		2090	210CG	4.878
40	209N	210N	3.152		2090	2120	4.958
	209N	212CG1	4.281		2090	2100D1	4.993
	209N	210CA	4.540		210N	212N	4.398

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	210N	213N	4.866		212C	216CA	4.658
	210N	213CB	4.979		212C	213CG	4.966
	210CA	213CB	4.405	45	212O	213N	2.245
	210CA	212N	4.438		212O	216N	2.670
5	210CA	213N	4.596		212O	213CA	2.759
	210C	213N	3.886		212O	213C	2.887
	210C	213CB	4.239		212O	216CB	3.134
	210C	213CA	4.591	50	212O	213O	3.255
	210C	212CA	4.624		212O	216CA	3.457
10	210C	212C	4.679		212O	213CB	4.240
	210O	213N	3.501		212O	304CE1	4.399
	210O	213CB	3.633		212O	216C	4.660
	210O	212N	3.644	55	212O	304CZ	4.701
	210O	213CA	3.933		213N	216N	4.607
15	210O	213C	4.126		213N	216CB	4.734
	210O	212C	4.352		213CA	250CD1	4.134
	210O	212CA	4.631		213CA	216CB	4.363
	210O	213CG	4.674	60	213CA	216N	4.434
	210O	213CD1	4.727		213CA	250CG1	4.898
20	212N	213N	2.784		213CA	216CA	4.958
	212N	213CA	4.205		213CB	250CD1	4.585
	212N	213C	4.773		213CG	250CG1	4.288
	212N	213CB	4.895	65	213CG	250CD1	4.298
	212CA	213N	2.468		213CG	249NH2	4.361
25	212CA	213CA	3.845		213CD1	249NH2	4.189
	212CA	213C	4.420		213CD1	250CG1	4.969
	212CA	216N	4.888		213CD1	249CZ	4.976
	212CA	213CB	4.891	70	213CD2	250CG1	3.388
	212CB	213N	3.397		213CD2	250CD1	3.646
30	212CB	213CA	4.698		213CD2	247ND2	4.070
	212CB	304CE1	4.881		213CD2	247OD1	4.172
	212CG1	213N	4.408		213CD2	249NH2	4.297
	212CG2	213N	3.253	75	213CD2	249CB	4.423
	212CG2	213CA	4.264		213CD2	247CG	4.542
35	212CG2	304CE1	4.815		213CD2	250CB	4.579
	212C	213N	1.335		213CD2	250N	4.650
	212C	213CA	2.440		213CD2	249CD	4.689
	212C	213C	2.994	80	213CD2	250CA	4.924
	212C	213CB	3.710		213CE1	249NH2	3.969
40	212C	213O	3.755		213CE1	249CZ	4.403
	212C	216N	3.855		213CE1	249NH1	4.789
	212C	216CB	4.183		213CE1	250CG1	4.914

	213CE1	249NE	4.963		213O	213N	3.471
	213CE2	250CG1	3.302		213O	216CA	3.662
	213CE2	249CB	3.341	45	213O	216CB	3.709
	213CE2	250N	3.738		213O	216C	3.731
5	213CE2	213CB	3.785		213O	250CD1	4.129
	213CE2	247OD1	3.897		213O	250CG1	4.545
	213CE2	249C	4.015		213O	216O	4.914
	213CE2	249CD	4.057	50	216N	304CZ	4.099
	213CE2	249NH2	4.080		216N	304CE2	4.314
10	213CE2	250CD1	4.089		216N	304CE1	4.419
	213CE2	250CA	4.157		216N	304CD2	4.807
	213CE2	250CB	4.248		216N	304CD1	4.895
	213CE2	249CG	4.314	55	216CA	304CE2	3.847
	213CE2	249CA	4.346		216CA	304CD2	3.926
15	213CE2	249NE	4.420		216CA	304CZ	3.934
	213CE2	249CZ	4.459		216CA	304CG	4.094
	213CE2	247ND2	4.468		216CA	304CE1	4.099
	213CE2	249O	4.492	60	216CA	304CD1	4.169
	213CE2	247CG	4.604		216CA	250CD1	4.669
20	213CZ	249CB	3.765		216CA	304CB	4.908
	213CZ	249NH2	3.909		216CA	220N	4.975
	213CZ	249CZ	4.112		216CA	220CD1	4.997
	213CZ	250CG1	4.148	65	216CB	250CD1	3.531
	213CZ	249NE	4.295		216CB	304CD1	3.550
25	213CZ	249C	4.377		216CB	304CE1	3.746
	213CZ	249CD	4.394		216CB	304CG	3.756
	213CZ	250N	4.428		216CB	304CZ	4.110
	213CZ	249O	4.508	70	216CB	304CD2	4.118
	213CZ	249NH1	4.708		216CB	304CE2	4.288
30	213CZ	249CG	4.729		216CB	304CB	4.383
	213CZ	250CA	4.749		216CB	250CG1	4.685
	213CZ	249CA	4.754		216CB	220CD1	4.706
	213C	216N	3.701	75	216C	220N	4.091
	213C	216CB	4.305		216C	220CG	4.389
35	213C	216CA	4.432		216C	220CD1	4.410
	213C	250CD1	4.614		216C	220CB	4.425
	213C	216C	4.795		216C	250CD1	4.646
	213O	216N	3.163	80	216C	304CD2	4.738
	213O	212O	3.255		216C	304CE2	4.889
40	213O	213CB	3.375		216C	220CA	4.901
	213O	213CG	3.382		216C	304CG	4.985
	213O	213CD1	3.423		216O	220N	2.973

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	216O	220CB	3.240
	216O	220CG	3.312
	216O	220CD1	3.600
	216O	220CA	3.682
5	216O	304CD2	4.466
	216O	220CD2	4.723
	216O	220C	4.729
	216O	304CG	4.812
	216O	304CE2	4.867
10	220CG	304CB	3.954
	220CG	304CD2	4.620
	220CG	304CG	4.655
	220CG	304N	4.839
	220CG	303C	4.910
15	220CG	304CA	4.914
	220CG	303O	4.942
	220CD1	250CG2	3.858
	220CD1	304CB	3.918
	220CD1	304N	4.769
20	220CD1	304CG	4.781
	220CD1	304CA	4.980
	220CD2	303O	3.794
	220CD2	303C	3.874
	220CD2	304CB	4.033
25	220CD2	303N	4.091
	220CD2	304N	4.170
	220CD2	303CA	4.361
	220CD2	304CA	4.531
	220CD2	304CD2	4.978
30	220CD2	304CG	4.997
	244N	303CA	4.590
	244N	303N	4.800
	244N	303CB	4.918
	244CA	246N	4.644
35	244CA	303CA	4.703
	244CA	303CB	4.756
	244CB	303CA	3.618
	244CB	303CB	3.663
	244CB	304N	4.380
40	244CB	303N	4.545
	244CB	303C	4.581
	244CB	246N	4.821
	244CG	303CB	4.261
	244CG	246N	4.437
45	244CG	303CA	4.495
	244CG	304O	4.536
	244CG	276O	4.605
	244CG	304N	4.694
	244CG	274OD1	4.945
50	244CD2	276O	3.276
	244CD2	276C	4.179
	244CD2	274OD1	4.296
	244CD2	276CA	4.491
	244CD2	276N	4.705
55	244CD2	303CB	4.764
	244ND1	246N	3.736
	244ND1	246CB	3.939
	244ND1	304O	4.002
	244ND1	246CA	4.065
60	244ND1	274OD1	4.288
	244ND1	274ND2	4.528
	244ND1	274CG	4.656
	244ND1	304N	4.729
	244CE1	274OD1	3.036
65	244CE1	274ND2	3.525
	244CE1	274CG	3.527
	244CE1	246N	4.024
	244CE1	246CA	4.116
	244CE1	246CB	4.253
70	244CE1	304O	4.409
	244CE1	276O	4.453
	244CE1	276CA	4.503
	244CE1	276N	4.607
	244CE1	274CB	4.806
75	244CE1	276C	4.903
	244NE2	274OD1	2.997
	244NE2	276O	3.189
	244NE2	276CA	3.620
	244NE2	276N	3.747
80	244NE2	276C	3.774
	244NE2	274CG	3.873
	244NE2	274ND2	4.248
	244NE2	246N	4.811
	244C	246N	3.311

	244C	246CA	4.639		246C	274CG	4.829
	244O	246N	3.012		246O	247N	2.265
	244O	246CA	4.288	45	246O	246CA	2.400
	244O	246CB	4.440		246O	247CA	2.826
5	246N	247N	2.858		246O	247CB	3.054
	246N	247CA	4.225		246O	247ND2	3.937
	246N	247O	4.519		246O	247CG	3.998
	246N	274ND2	4.635	50	246O	274ND2	4.116
	246N	274CG	4.694		246O	274CB	4.132
10	246N	247C	4.783		246O	247C	4.279
	246N	274CB	4.908		246O	274CG	4.548
	246CA	247N	2.398		246O	247O	4.812
	246CA	274ND2	3.762	55	247CA	249N	4.491
	246CA	247CA	3.780		247CB	249N	4.494
15	246CA	274CG	4.159		247CG	250N	3.957
	246CA	274CB	4.398		247CG	249N	4.038
	246CA	247CB	4.470		247CG	250CB	4.274
	246CA	247ND2	4.518	60	247CG	249CB	4.318
	246CA	247O	4.632		247CG	250CG1	4.508
20	246CA	247C	4.704		247CG	249CA	4.619
	246CA	274OD1	4.840		247CG	249CG	4.681
	246CA	247CG	4.866		247CG	250CD1	4.751
	246CB	247N	3.017	65	247CG	250CA	4.762
	246CB	247ND2	3.981		247CG	249C	4.818
25	246CB	274ND2	4.268		247OD1	249N	3.007
	246CB	247CA	4.360		247OD1	250N	3.066
	246CB	247CG	4.666		247OD1	249CB	3.116
	246CB	247CB	4.733	70	247OD1	249CA	3.431
	246CB	247O	4.816		247OD1	249CG	3.604
30	246CB	250CG2	4.830		247OD1	249C	3.735
	246CB	250CD1	4.837		247OD1	250CB	4.015
	246CB	250CB	4.978		247OD1	250CA	4.121
	246CB	274CG	4.988	75	247OD1	249CD	4.172
	246C	247CA	2.445		247OD1	250CG1	4.267
35	246C	247CB	3.093		247OD1	250CD1	4.870
	246C	247C	3.647		247OD1	249O	4.930
	246C	247ND2	3.730		247ND2	250CD1	3.820
	246C	247CG	3.789	80	247ND2	250CG1	3.953
	246C	247O	3.922		247ND2	250CB	4.004
40	246C	274ND2	4.440		247ND2	250N	4.402
	246C	274CB	4.631		247ND2	250CA	4.869
	246C	247OD1	4.815		247C	249N	3.305

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	247C	250N	4.120		274O	276CA	4.809
	247C	249CA	4.545		303N	304CA	4.862
	247C	249C	4.779	45	303CA	304N	2.430
	247C	250CB	4.900		303CA	304CA	3.818
5	247C	250CA	4.940		303CA	304C	4.661
	247O	249N	3.360		303CA	304O	4.679
	247O	250N	3.406		303CA	304CB	4.684
	247O	250CB	3.950	50	303CB	304N	3.222
	247O	250CA	3.970		303CB	304CA	4.521
10	247O	250C	4.123		303CB	304O	4.818
	247O	249C	4.217		303CB	304C	4.963
	247O	249CA	4.373		303C	304CA	2.452
	247O	250CG2	4.591	55	303C	304CB	3.442
	249N	250N	2.817		303C	304C	3.504
15	249N	250CA	4.203		303C	304O	3.860
	249N	250C	4.666		303C	305N	4.467
	249CA	250N	2.413		303C	304CG	4.748
	249CA	250CA	3.779	60	303O	304N	2.247
	249CA	250C	4.413		303O	304CA	2.806
20	249CA	250CB	4.866		303O	304CB	3.762
	249CB	250N	3.035		303O	304C	3.989
	249CB	250CA	4.353		303O	304O	4.630
	249CG	250N	4.416	65	303O	305N	4.674
	249C	250CA	2.410		303O	304CG	4.827
25	249C	250C	3.035		304N	305N	3.547
	249C	250CB	3.720		304N	305CA	4.719
	249C	250O	3.774		304CA	305N	2.450
	249C	250CG1	4.278	70	304CA	305CA	3.795
	249C	250CG2	4.919		304CA	305C	4.958
30	249O	250N	2.240		304CB	305N	3.325
	249O	250CA	2.733		304CG	305N	3.321
	249O	250C	3.038		304CG	305CA	4.469
	249O	250O	3.374	75	304CG	305O	4.729
	249O	250CB	4.232		304CD1	305N	3.304
35	249O	250CG1	4.716		304CD1	305CA	4.052
	274OD1	276CB	4.452		304CD1	305O	4.145
	274OD1	276C	4.632		304CD1	305C	4.383
	274OD1	276O	4.648	80	304CD2	305N	4.139
	274ND2	276N	4.935		304CE1	305O	3.966
40	274C	276N	3.322		304CE1	305N	4.100
	274C	276CA	4.688		304CE1	305C	4.483
	274O	276N	3.552		304CE1	305CA	4.616

	304CE2	305N	4.804
	304CE2	305O	4.952
	304CZ	305O	4.401
	304CZ	305N	4.783
5	304C	305N	1.329
	304C	305CA	2.395
	304C	305C	3.718
	304C	305O	4.130
	304C	306N	4.754
10	304O	305N	2.239
	304O	305CA	2.696
	304O	305C	4.145
	304O	305O	4.826
	304O	306N	4.921
15	305N	306N	3.702
	305N	306CA	4.963
	305CA	306N	2.391
	305CA	306CA	3.771
	305CA	306O	4.400
20	305CA	306C	4.467
	305C	306CA	2.427
	305C	306C	3.071
	305C	306O	3.236
	305O	306N	2.248
25	305O	306CA	2.772
	305O	306C	2.996
	305O	306O	3.217
	306N	487CD2	4.792
	306CA	487CD2	4.048
30	306CA	487CG	4.502
	306CA	487CB	4.525
	306CA	487CE2	4.655
	306C	487CB	4.265
	306C	487CD2	4.576
35	306C	487CG	4.734
	306O	487CB	4.248
	306O	487CG	4.922

Table III provides the the atomic coordinates of the acetyl-CoA complex structure in the active site. Solvent molecules are omitted here for clarity, but can be found in Fig. 2. Residue 487 is Phe87 from the other monomer. Residue CAC is acetylated cysteine, and COA is the bound CoA molecule.

TABLE III

ATOM		RESIDUE		X	Y	Z	Occ	B
1	N	THR	28	32.909	0.319	26.935	1.00	14.64
2	CA	THR	28	31.524	0.759	27.053	1.00	16.73
3	CB	THR	28	31.399	2.311	26.861	1.00	18.66
4	OG1	THR	28	30.140	2.771	27.368	1.00	21.07
5	CG2	THR	28	31.523	2.702	25.394	1.00	14.87
6	C	THR	28	30.671	-0.021	26.041	1.00	15.95
7	O	THR	28	31.196	-0.755	25.190	1.00	14.39
8	N	TRP	32	24.685	1.112	27.156	1.00	18.61
9	CA	TRP	32	24.896	1.996	28.316	1.00	17.67
10	CB	TRP	32	26.253	1.657	28.999	1.00	18.46
11	CG	TRP	32	26.543	2.508	30.252	1.00	14.22
12	CD2	TRP	32	26.947	3.865	30.325	1.00	16.45
13	CE2	TRP	32	27.044	4.089	31.715	1.00	13.95
14	CE3	TRP	32	27.232	4.916	29.444	1.00	14.91
15	CD1	TRP	32	26.405	1.970	31.509	1.00	19.11
16	NE1	TRP	32	26.722	2.948	32.369	1.00	17.55
17	CZ2	TRP	32	27.417	5.348	32.222	1.00	16.49
18	CZ3	TRP	32	27.602	6.164	29.953	1.00	8.45
19	CH2	TRP	32	27.698	6.373	31.321	1.00	11.56
20	C	TRP	32	24.917	3.414	27.781	1.00	16.08
21	O	TRP	32	24.363	4.325	28.378	1.00	17.69
22	N	ILE	33	25.536	3.534	26.593	1.00	16.72
23	CA	ILE	33	25.591	4.911	26.052	1.00	17.89
24	CB	ILE	33	26.670	5.169	24.944	1.00	20.24
25	CG2	ILE	33	26.790	6.671	24.704	1.00	18.87
26	CG1	ILE	33	28.038	4.571	25.295	1.00	16.21
27	CD1	ILE	33	28.930	4.480	24.013	1.00	24.09
28	C	ILE	33	24.196	5.403	25.732	1.00	18.98
29	O	ILE	33	23.877	6.540	26.194	1.00	18.61
30	N	ARG	36	22.046	6.096	28.836	1.00	20.61
31	CA	ARG	36	22.587	7.077	29.780	1.00	20.93
32	CB	ARG	36	23.940	6.602	30.339	1.00	19.27
33	CG	ARG	36	23.882	5.328	31.146	1.00	20.40
34	CD	ARG	36	23.627	5.619	32.605	1.00	22.27
35	NE	ARG	36	23.511	4.396	33.393	1.00	27.02
36	CZ	ARG	36	23.867	4.298	34.670	1.00	25.93
37	NH1	ARG	36	23.734	3.152	35.315	1.00	26.63

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Table III Cont.

	ATOM		RESIDUE		X	Y	Z	Occ	B
	38	NH2	ARG	36	24.330	5.355	35.318	1.00	23.35
	39	C	ARG	36	22.702	8.517	29.247	1.00	18.28
5	40	O	ARG	36	22.703	9.462	30.029	1.00	17.41
	41	N	THR	37	22.798	8.697	27.936	1.00	18.97
	42	CA	THR	37	22.932	10.050	27.405	1.00	21.02
	43	CB	THR	37	24.388	10.371	26.949	1.00	18.78
	44	OG1	THR	37	24.793	9.461	25.925	1.00	17.72
10	45	CG2	THR	37	25.347	10.293	28.084	1.00	21.35
	46	C	THR	37	22.048	10.362	26.222	1.00	20.16
	47	O	THR	37	21.914	11.534	25.839	1.00	25.43
	48	N	CAC	112	30.456	25.709	28.104	1.00	10.38
	49	CA	CAC	112	29.270	25.229	27.412	1.00	14.44
15	50	CB	CAC	112	28.799	23.888	27.980	1.00	17.69
	51	SG	CAC	112	29.712	22.439	27.254	1.00	17.65
	52	CD	CAC	112	32.183	21.508	28.594	1.00	24.17
	53	CE	CAC	112	30.937	22.403	28.616	1.00	21.28
	54	OE	CAC	112	30.752	23.125	29.602	1.00	25.29
20	55	C	CAC	112	28.167	26.294	27.295	1.00	11.81
	56	O	CAC	112	27.369	26.232	26.368	1.00	10.19
	57	N	LEU	142	35.611	19.985	21.261	1.00	10.22
	58	CA	LEU	142	35.860	19.347	22.539	1.00	13.06
	59	CB	LEU	142	34.735	19.597	23.555	1.00	12.36
25	60	CG	LEU	142	34.583	20.999	24.171	1.00	11.62
	61	CD1	LEU	142	33.937	20.919	25.543	1.00	5.06
	62	CD2	LEU	142	35.940	21.651	24.300	1.00	10.88
	63	C	LEU	142	36.175	17.851	22.433	1.00	13.55
	64	O	LEU	142	36.786	17.299	23.322	1.00	19.07
30	65	N	ARG	151	36.295	6.724	29.164	1.00	23.03
	66	CA	ARG	151	34.919	6.417	28.730	1.00	23.11
	67	CB	ARG	151	34.470	5.004	29.175	1.00	16.86
	68	CG	ARG	151	34.348	4.774	30.666	1.00	15.32
	69	CD	ARG	151	33.926	3.335	30.928	1.00	7.13
35	70	NE	ARG	151	33.779	3.086	32.349	1.00	10.71
	71	CZ	ARG	151	33.378	1.927	32.869	1.00	3.91
	72	NH1	ARG	151	33.268	1.783	34.179	1.00	4.61
	73	NH2	ARG	151	33.078	0.930	32.071	1.00	10.10
	74	C	ARG	151	33.873	7.478	29.120	1.00	17.49
40	75	O	ARG	151	33.012	7.828	28.317	1.00	17.71
	76	N	GLY	152	34.016	8.044	30.309	1.00	17.52
	77	CA	GLY	152	33.070	9.045	30.776	1.00	16.37
	78	C	GLY	152	33.062	10.401	30.082	1.00	15.84
	79	O	GLY	152	32.246	11.248	30.439	1.00	21.56

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Table III Cont.

	ATOM		RESIDUE		X	Y	Z	Occ	B
	80	N	ILE	155	32.443	9.844	25.187	1.00	7.71
	81	CA	ILE	155	31.083	9.426	24.707	1.00	12.55
5	82	CB	ILE	155	30.385	8.425	25.708	1.00	11.77
	83	CG2	ILE	155	31.197	7.148	25.866	1.00	11.90
	84	CG1	ILE	155	30.158	9.085	27.088	1.00	12.15
	85	CD1	ILE	155	29.158	8.276	27.966	1.00	11.79
	86	C	ILE	155	30.193	10.622	24.373	1.00	10.55
10	87	O	ILE	155	29.530	10.593	23.314	1.00	14.21
	88	N	ILE	156	30.115	11.601	25.228	1.00	15.15
	89	CA	ILE	156	29.284	12.781	24.971	1.00	13.87
	90	CB	ILE	156	28.912	13.460	26.383	1.00	18.45
	91	CG2	ILE	156	27.632	12.860	26.931	1.00	23.09
15	92	CG1	ILE	156	30.082	13.252	27.370	1.00	15.34
	93	CD1	ILE	156	29.617	12.611	28.714	1.00	19.30
	94	C	ILE	156	29.845	13.826	24.026	1.00	13.98
	95	O	ILE	156	29.049	14.365	23.211	1.00	9.76
	96	N	PHE	157	31.114	14.104	24.000	1.00	10.77
20	97	CA	PHE	157	31.656	15.152	23.157	1.00	7.33
	98	CB	PHE	157	32.859	15.790	23.759	1.00	4.54
	99	CG	PHE	157	32.560	16.451	25.090	1.00	7.66
	100	CD1	PHE	157	32.946	15.788	26.255	1.00	3.98
	101	CD2	PHE	157	31.915	17.650	25.184	1.00	5.65
25	102	CE1	PHE	157	32.660	16.349	27.491	1.00	9.88
	103	CE2	PHE	157	31.630	18.205	26.422	1.00	4.05
	104	CZ	PHE	157	32.018	17.536	27.588	1.00	6.80
	105	C	PHE	157	31.810	14.851	21.690	1.00	10.70
	106	O	PHE	157	32.380	13.859	21.257	1.00	13.03
30	107	N	LEU	189	34.231	20.663	36.441	1.00	15.69
	108	CA	LEU	189	34.309	20.542	34.989	1.00	15.11
	109	CB	LEU	189	32.983	20.982	34.350	1.00	10.07
	110	CG	LEU	189	32.807	20.922	32.844	1.00	7.51
	111	CD1	LEU	189	33.311	19.593	32.263	1.00	10.35
35	112	CD2	LEU	189	31.343	21.142	32.523	1.00	7.61
	113	C	LEU	189	35.464	21.418	34.538	1.00	15.40
	114	O	LEU	189	35.452	22.612	34.812	1.00	16.51
	115	N	LEU	205	40.306	17.390	29.143	1.00	13.16
	116	CA	LEU	205	39.050	17.802	29.770	1.00	15.27
40	117	CB	LEU	205	37.963	17.874	28.694	1.00	12.62
	118	CG	LEU	205	36.505	18.215	29.034	1.00	14.99
	119	CD1	LEU	205	35.817	18.527	27.706	1.00	15.12
	120	CD2	LEU	205	35.773	17.085	29.762	1.00	11.51
	121	C	LEU	205	38.658	16.793	30.846	1.00	15.81

Table III Cont.

ATOM		RESIDUE		X	Y	Z	Occ	B
122	O	LEU	205	38.675	15.588	30.594	1.00	20.20
123	N	MET	207	35.792	15.888	34.121	1.00	18.42
124	CA	MET	207	34.419	16.232	34.463	1.00	16.18
125	CB	MET	207	33.555	16.227	33.174	1.00	17.87
126	CG	MET	207	32.024	16.237	33.467	1.00	17.17
127	SD	MET	207	30.990	16.464	32.044	2.00	17.60
128	CE	MET	207	31.340	14.797	31.582	1.00	22.99
129	C	MET	207	33.790	15.238	35.466	1.00	16.62
130	O	MET	207	33.726	14.046	35.222	1.00	18.22
131	N	GLY	209	30.811	14.103	36.169	1.00	12.42
132	CA	GLY	209	29.492	14.040	35.588	1.00	16.72
133	C	GLY	209	28.358	14.011	36.516	1.00	19.06
134	O	GLY	209	27.487	14.883	36.423	1.00	20.59
135	N	ASN	210	28.284	13.037	37.418	1.00	21.24
136	CA	ASN	210	27.150	13.010	38.362	1.00	24.44
137	CB	ASN	210	27.198	11.753	39.171	1.00	25.49
138	CG	ASN	210	27.160	11.958	40.631	1.00	33.50
139	OD1	ASN	210	26.177	11.619	41.309	1.00	34.80
140	ND2	ASN	210	28.217	12.429	41.247	1.00	32.41
141	C	ASN	210	26.970	14.201	39.196	1.00	25.55
142	O	ASN	210	25.858	14.799	39.270	1.00	27.11
143	N	VAL	212	27.967	17.255	38.323	1.00	18.86
144	CA	VAL	212	27.657	18.365	37.397	1.00	19.45
145	CB	VAL	212	28.483	18.363	36.115	1.00	13.66
146	CG1	VAL	212	28.142	19.417	35.091	1.00	10.49
147	CG2	VAL	212	29.921	18.642	36.480	1.00	11.31
148	C	VAL	212	26.176	18.359	36.977	1.00	25.20
149	O	VAL	212	25.455	19.359	36.929	1.00	27.15
150	N	PHE	213	25.738	17.114	36.763	1.00	24.63
151	CA	PHE	213	24.361	16.813	36.336	1.00	25.87
152	CB	PHE	213	24.203	15.287	36.398	1.00	23.74
153	CG	PHE	213	22.788	14.958	36.099	1.00	23.97
154	CD1	PHE	213	22.533	14.398	34.810	1.00	27.08
155	CD2	PHE	213	21.752	14.909	36.974	1.00	22.61
156	CE1	PHE	213	21.275	13.964	34.464	1.00	23.26
157	CE2	PHE	213	20.480	14.482	36.625	1.00	23.27
158	CZ	PHE	213	20.223	13.976	35.335	1.00	21.74
159	C	PHE	213	23.356	17.458	37.319	1.00	26.46
160	O	PHE	213	22.395	18.091	36.945	1.00	28.12
161	N	ALA	216	23.435	21.215	37.390	1.00	21.80
162	CA	ALA	216	22.949	21.675	36.100	1.00	19.74
163	CB	ALA	216	23.464	20.861	34.933	1.00	18.25

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Table III Cont.

	ATOM		RESIDUE		X	Y	Z	Occ	B
	164	C	ALA	216	21.440	21.811	36.028	1.00	20.86
	165	O	ALA	216	20.936	22.882	35.612	1.00	14.72
5	166	N	HIS	244	21.005	23.509	25.764	1.00	14.90
	167	CA	HIS	244	22.348	23.098	25.390	1.00	17.43
	168	CB	HIS	244	23.328	23.551	26.478	1.00	17.97
	169	CG	HIS	244	24.644	22.836	26.459	1.00	18.58
	170	CD2	HIS	244	25.582	22.714	25.488	1.00	18.43
10	171	ND1	HIS	244	25.123	22.136	27.546	1.00	18.75
	172	CE1	HIS	244	26.295	21.608	27.243	1.00	21.88
	173	NE2	HIS	244	26.597	21.944	26.000	1.00	17.34
	174	C	HIS	244	22.190	21.563	25.366	1.00	17.94
	175	O	HIS	244	21.579	20.979	26.286	1.00	18.08
15	176	N	ALA	246	23.569	18.461	26.118	1.00	19.92
	177	CA	ALA	246	24.594	17.753	26.886	1.00	22.75
	178	CB	ALA	246	24.851	18.474	28.207	1.00	20.40
	179	C	ALA	246	24.197	16.301	27.174	1.00	25.65
	180	O	ALA	246	24.941	15.364	26.869	1.00	27.18
20	181	N	ASN	247	23.035	16.122	27.793	1.00	26.14
	182	CA	ASN	247	22.545	14.795	28.146	1.00	26.38
	183	CB	ASN	247	22.964	14.464	29.587	1.00	28.11
	184	CG	ASN	247	22.574	13.044	30.019	1.00	32.46
	185	OD1	ASN	247	21.552	12.486	29.583	1.00	30.09
25	186	ND2	ASN	247	23.371	12.470	30.912	1.00	31.19
	187	C	ASN	247	21.021	14.827	28.020	1.00	26.38
	188	O	ASN	247	20.381	15.783	28.497	1.00	24.78
	189	N	ARG	249	18.806	13.418	29.619	1.00	26.17
	190	CA	ARG	249	18.082	13.368	30.918	1.00	30.19
30	191	CB	ARG	249	18.684	12.450	31.892	1.00	35.11
	192	CG	ARG	249	20.149	12.514	32.084	1.00	40.00
	193	CD	ARG	249	20.737	11.377	33.040	1.00	40.00
	194	NE	ARG	249	19.770	10.270	32.981	1.00	40.00
	195	CZ	ARG	249	20.131	8.991	32.720	1.00	40.00
35	196	NH1	ARG	249	19.206	8.005	32.728	1.00	40.00
	197	NH2	ARG	249	21.400	8.728	32.469	1.00	40.00
	198	C	ARG	249	17.883	14.720	31.505	1.00	30.27
	199	O	ARG	249	16.848	15.128	31.999	1.00	29.21
	200	N	ILE	250	19.022	15.485	31.317	1.00	31.13
40	201	CA	ILE	250	18.989	16.891	31.777	1.00	30.26
	202	CB	ILE	250	20.417	17.557	31.646	1.00	31.49
	203	CG2	ILE	250	20.269	19.060	31.848	1.00	27.57
	204	CG1	ILE	250	21.391	16.967	32.703	1.00	27.31
	205	CD1	ILE	250	22.804	17.587	32.626	1.00	29.25

Table III Cont.

	ATOM		RESIDUE		X	Y	Z	Occ	B
	206	C	ILE	250	17.878	17.652	31.051	1.00	29.32
	207	O	ILE	250	17.014	18.274	31.667	1.00	30.29
5	208	N	ASN	274	27.325	16.399	22.555	1.00	13.47
	209	CA	ASN	274	27.474	17.720	23.155	1.00	13.39
	210	CB	ASN	274	27.818	17.530	24.622	1.00	15.56
	211	CG	ASN	274	27.960	18.816	25.366	1.00	17.87
	212	OD1	ASN	274	28.135	19.881	24.780	1.00	24.67
10	213	ND2	ASN	274	27.890	18.729	26.689	1.00	19.64
	214	C	ASN	274	28.638	18.414	22.458	1.00	14.33
	215	O	ASN	274	29.770	17.971	22.613	1.00	12.94
	216	N	SER	276	29.549	21.633	22.863	1.00	7.51
	217	CA	SER	276	29.823	22.861	23.613	1.00	13.37
15	218	CB	SER	276	31.354	23.045	23.758	1.00	16.08
	219	OG	SER	276	31.709	24.178	24.552	1.00	13.44
	220	C	SER	276	29.132	24.114	23.029	1.00	13.89
	221	O	SER	276	27.945	24.062	22.700	1.00	11.72
	222	N	PHE	304	24.334	25.567	30.088	1.00	14.66
20	223	CA	PHE	304	25.107	25.471	31.332	1.00	17.36
	224	CB	PHE	304	24.396	24.476	32.274	1.00	14.19
	225	CG	PHE	304	25.035	24.321	33.630	1.00	14.80
	226	CD1	PHE	304	26.179	23.562	33.795	1.00	13.55
	227	CD2	PHE	304	24.464	24.909	34.748	1.00	18.11
25	228	CE1	PHE	304	26.751	23.388	35.053	1.00	13.17
	229	CE2	PHE	304	25.024	24.744	36.014	1.00	19.56
	230	CZ	PHE	304	26.175	23.977	36.166	1.00	18.61
	231	C	PHE	304	26.495	24.936	30.934	1.00	18.48
	232	O	PHE	304	26.597	24.072	30.048	1.00	19.82
30	233	N	GLY	305	27.546	25.411	31.603	1.00	20.16
	234	CA	GLY	305	28.889	24.966	31.272	1.00	18.15
	235	C	GLY	305	29.950	25.008	32.367	1.00	15.06
	236	O	GLY	305	29.701	25.407	33.507	1.00	11.78
	237	N	GLY	306	31.145	24.556	31.988	1.00	16.84
35	238	CA	GLY	306	32.290	24.514	32.875	1.00	16.87
	239	C	GLY	306	32.529	25.856	33.525	1.00	19.36
	240	O	GLY	306	32.236	26.899	32.934	1.00	17.63
	241	N	PHE	487	38.425	26.469	30.807	1.00	13.64
	242	CA	PHE	487	37.277	26.474	31.704	1.00	12.94
40	243	CB	PHE	487	35.953	26.064	31.031	1.00	16.12
	244	CG	PHE	487	35.967	24.728	30.332	1.00	10.50
	245	CD1	PHE	487	36.055	24.668	28.952	1.00	11.96
	246	CD2	PHE	487	35.776	23.548	31.043	1.00	14.59
	247	CE1	PHE	487	35.943	23.450	28.275	1.00	11.67

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Table III Cont.

	ATOM		RESIDUE		X	Y	Z	Occ	B
	248	CE2	PHE	487	35.665	22.321	30.373	1.00	10.83
	249	CZ	PHE	487	35.748	22.283	28.989	1.00	9.41
5	250	C	PHE	487	37.606	25.574	32.861	1.00	13.75
	251	O	PHE	487	38.217	24.529	32.661	1.00	18.53
	252	AO6	COA	350	25.886	9.541	33.559	1.00	40.00
	253	AP2	COA	350	25.938	8.466	34.779	1.00	40.00
	254	AO4	COA	350	25.984	7.033	34.193	1.00	40.00
10	255	AO5	COA	350	24.688	8.689	35.674	1.00	40.00
	256	AO3	COA	350	27.383	8.800	35.491	1.00	40.00
	257	AP1	COA	350	27.959	7.998	36.780	1.00	40.00
	258	AO1	COA	350	26.887	7.993	37.879	1.00	40.00
	259	AO2	COA	350	29.237	8.653	37.296	1.00	40.00
15	260	AO5*	COA	350	28.201	6.460	36.164	1.00	40.00
	261	AC5*	COA	350	27.718	5.279	36.817	1.00	39.18
	262	AC4*	COA	350	28.472	4.019	36.378	1.00	37.65
	263	AO4*	COA	350	28.702	4.012	34.931	1.00	35.45
	264	AC3*	COA	350	29.898	3.856	36.965	1.00	37.54
20	265	AO3*	COA	350	30.205	2.474	37.178	1.00	40.00
	266	AP3*	COA	350	31.518	2.029	38.160	1.00	40.00
	267	AO7	COA	350	32.888	2.220	37.337	1.00	40.00
	268	AO8	COA	350	31.503	3.018	39.420	1.00	40.00
	269	AO9	COA	350	31.296	0.500	38.522	1.00	40.00
25	270	AC2*	COA	350	30.688	4.469	35.850	1.00	32.65
	271	AO2*	COA	350	32.112	4.433	35.932	1.00	24.96
	272	AC1*	COA	350	30.098	3.815	34.584	1.00	27.72
	273	AN9	COA	350	30.429	4.564	33.382	1.00	20.99
	274	AC8	COA	350	30.840	5.878	33.186	1.00	21.31
30	275	AN7	COA	350	30.992	6.002	31.788	1.00	18.53
	276	AC5	COA	350	30.700	4.873	31.234	1.00	12.67
	277	AC6	COA	350	30.698	4.501	29.898	1.00	12.21
	278	AN6	COA	350	31.039	5.381	28.963	1.00	15.81
	279	AN1	COA	350	30.338	3.249	29.672	1.00	17.72
35	280	AC2	COA	350	30.014	2.442	30.654	1.00	11.38
	281	AN3	COA	350	29.997	2.743	31.973	1.00	15.08
	282	AC4	COA	350	30.341	3.964	32.268	1.00	15.56
	283	PS1	COA	350	27.926	20.647	30.314	1.00	40.00
	284	PC2	COA	350	26.439	19.897	31.045	1.00	40.00
40	285	PC3	COA	350	26.760	18.654	31.835	1.00	40.00
	286	PN4	COA	350	26.965	17.518	30.873	1.00	40.00
	287	PC5	COA	350	27.350	16.338	31.273	1.00	40.00
	288	PO5	COA	350	27.542	15.370	30.476	1.00	40.00
	289	PC6	COA	350	27.580	16.199	32.745	1.00	40.00

Table III Cont.

ATOM		RESIDUE		X	Y	Z	Occ	B
290	PC7	COA	350	26.255	15.801	33.363	1.00	40.00
291	PN8	COA	350	26.292	14.370	33.634	1.00	40.00
292	PC9	COA	350	26.176	13.440	32.669	1.00	37.37
293	PO9	COA	350	25.948	13.691	31.437	1.00	31.87
294	PC10	COA	350	26.320	11.982	33.151	1.00	38.48
295	PO10	COA	350	26.849	11.940	34.496	1.00	37.07
296	PC11	COA	350	27.172	11.057	32.178	1.00	40.00
297	PC13	COA	350	28.667	11.476	32.189	1.00	40.00
298	PC14	COA	350	26.632	11.101	30.745	1.00	40.00
299	PC12	COA	350	26.933	9.588	32.579	1.00	40.00

Mutants and Derivatives

The invention further provides homologues, co-complexes and mutants of the *E. coli* FabH crystal structure of the invention.

The term "homologue" means a protein having at least 30% amino acid sequence identity with *E. coli* FabH or any of its functional domains.

The term "co-complex" means FabH or a mutant or homologue of FabH in covalent or non-covalent association with a chemical entity or compound.

The term "mutant" refers to a FabH polypeptide, i.e., a polypeptide displaying the biological activity of wild-type FabH activity, characterized by the replacement of at least one amino acid from the wild-type FabH sequence. Such a mutant may be prepared, for example, by expression of *E. coli* FabH cDNA previously altered in its coding sequence by oligonucleotide-directed mutagenesis.

E. coli FabH mutants may also be generated by site-specific incorporation of unnatural amino acids into the FabH proteins using the general biosynthetic method of C. J. Noren et al, Science, 244:182-188 (1989). In this method, the codon encoding the amino acid of interest in wild-type FabH enzyme is replaced by a "blank" nonsense codon, TAG, using oligonucleotide-directed mutagenesis. A suppressor tRNA directed against this codon is then chemically aminoacylated *in vitro* with the desired unnatural amino acid. The aminoacylated tRNA is then added to an *in vitro* translation system to yield a mutant FabH enzyme with the site-specific incorporated unnatural amino acid.

Selenomethionine may be incorporated into wild-type or mutant FabH by expression of *E. coli* FabH -encoding cDNAs in auxotrophic or non- auxotrophic *E. coli* strains [W. A. Hendrickson et al, EMBO J., 9(5):1665-1672 (1990)]. In this method, the wild-type or mutagenized FabH cDNA may be expressed in a host organism on a growth

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medium depleted of either natural methionine but enriched in selenomethionine. The location(s) of the Se atom(s) can be determined by X-ray diffraction analysis at three or four different wavelengths. This information, in turn, is used to generate the phase information used to construct three-dimensional structure of the enzyme.

5 **II.   Methods of Identifying Inhibitors of the Novel FabH Crystalline Structure**

Another aspect of this invention involves a method for identifying inhibitors of a FabH enzyme characterized by the crystal structure and novel active site described herein, and the inhibitors themselves. The novel *E. coli* FabH crystalline structure of the invention, or the structure of *E. coli* FabH homologue, permits the identification of inhibitors of FabH

10 activity. Such inhibitors may be competitive, binding to all or a portion of the active site of FabH; or non-competitive and bind to and inhibit FabH whether or not it is bound to another chemical entity.

One design approach is to probe the FabH crystal of the invention with molecules composed of a variety of different chemical entities to determine optimal sites for

15 interaction between candidate inhibitors and the enzyme. For example, high resolution X-ray diffraction data collected from crystals saturated with solvent allows the determination of where each type of solvent molecule sticks. Small molecules that bind tightly to those sites can then be designed and synthesized and tested for their FabH inhibitor activity [J. Travis, Science, 262:1374 (1993)].

20 This invention also enables the development of compounds that can isomerize to short-lived reaction intermediates in the chemical reaction of a substrate or other compound that binds to or with FabH. Thus, the time-dependent analysis of structural changes in FabH during its interaction with other molecules is permitted. The reaction intermediates of FabH can also be deduced from the reaction product in co-complex with FabH. Such

25 information is useful to design improved analogues of known FabH inhibitors or to design novel classes of inhibitors based on the reaction intermediates of the enzyme and enzyme-inhibitor co-complex. This provides a novel route for designing FabH inhibitors with both high specificity and stability.

Another approach made possible by this invention, is to screen computationally

30 small molecule data bases for chemical entities or compounds that can bind in whole, or in part, to the FabH enzyme. In this screening, the quality of fit of such entities or compounds to the binding site may be judged either by shape complementarity or by estimated interaction energy [E. C. Meng et al, J. Comp. Chem., 13:505-524 (1992)].

Because FabH may crystallize in more than one crystal form, the structure coordinates of FabH, or portions thereof, as provided by this invention are particularly useful to solve the structure of those other crystal forms of FabH. They may also be used to solve the structure of FabH mutant co-complexes, or of the crystalline form of any other

5   protein with significant amino acid sequence homology to any functional domain of FabH.

One method that may be employed for this purpose is molecular replacement. In this method, the unknown crystal structure, whether it is another crystal form of FabH, a FabH mutant, a FabH co-complex, a FabH from a different bacterial species, or the crystal of some other protein with significant amino acid sequence homology to any domain of

10   FabH, may be determined using the FabH structure coordinates of this invention as provided in Figure 1 and Tables I - III. This method will provide an accurate structural form for the unknown crystal more quickly and efficiently than attempting to determine such information *ab initio*.

Thus, the FabH structure provided herein permits the screening of known molecules

15   and/or the designing of new molecules which bind to the structure, particularly at the active site or substrate binding site, via the use of computerized evaluation systems. For example, computer modeling systems are available in which the sequence of the FabH, and the FabH structure (i.e., the atomic coordinates, bond distances between atoms in the active site region, etc. as provided by Figures 1-2 and Tables I - III herein) may be input. Thus, a

20   machine readable medium may be encoded with data representing the coordinates of Figures 1-2 and Tables I - III. The computer then generates structural details of the site into which a test compound should bind, thereby enabling the determination of the complementary structural details of said test compound.

More particularly, the design of compounds that bind to or inhibit FabH according

25   to this invention generally involves consideration of two factors. First, the compound must be capable of physically and structurally associating with FabH. Non-covalent molecular interactions important in the association of FabH with its substrate include hydrogen bonding, van der Waals and hydrophobic interactions.

Second, the compound must be able to assume a conformation that allows it to

30   associate with FabH. Although certain portions of the compound will not directly participate in this association with FabH, those portions may still influence the overall conformation of the molecule. This, in turn, may have a significant impact on potency. Such conformational requirements include the overall three-dimensional structure and orientation of the chemical entity or compound in relation to all or a portion of the binding

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site, e.g., active site or substrate binding sites of FabH, or the spacing between functional groups of a compound comprising several chemical entities that directly interact with FabH.

The potential inhibitory or binding effect of a chemical compound on FabH may be analyzed prior to its actual synthesis and testing by the use of computer modelling techniques. If the theoretical structure of the given compound suggests insufficient interaction and association between it and FabH, synthesis and testing of the compound is obviated. However, if computer modelling indicates a strong interaction, the molecule may then be synthesized and tested for its ability to bind to FabH and inhibit using a suitable assay. In this manner, synthesis of inoperative compounds may be avoided.

An inhibitory or other binding compound of FabH may be computationally evaluated and designed by means of a series of steps in which chemical entities or fragments are screened and selected for their ability to associate with the individual binding pockets or other areas of FabH.

One skilled in the art may use one of several methods to screen chemical entities or fragments for their ability to associate with FabH and more particularly with the individual binding pockets of the FabH active site or accessory binding sites. This process may begin by visual inspection of, for example, the active site on the computer screen based on the FabH coordinates in Figures 1-2 and Tables I - III. Selected fragments or chemical entities may then be positioned in a variety of orientations, or docked, within a binding pocket of FabH. Docking may be accomplished using software such as Quanta and Sybyl, followed by energy minimization and molecular dynamics with standard molecular mechanics force fields, such as CHARMM and AMBER.

Specialized computer programs may also assist in the process of selecting fragments or chemical entities. These include:

1.   GRID [P. J. Goodford, "A Computational Procedure for Determining Energetically Favorable Binding Sites on Biologically Important Macromolecules", J. Med. Chem., 28:849-857 (1985)]. GRID is available from Oxford University, Oxford, UK.

2.   MCSS [A. Miranker and M. Karplus, "Functionality Maps of Binding Sites: A Multiple Copy Simultaneous Search Method", Proteins: Structure, Function and Genetics, 11:29-34 (1991)]. MCSS is available from Molecular Simulations, Burlington, MA.

3.   AUTODOCK [D. S. Goodsell and A. J. Olsen, "Automated Docking of Substrates to Proteins by Simulated Annealing", Proteins: Structure, Function, and

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Genetics, 8:195-202 (1990)]. AUTODOCK is available from Scripps Research Institute, La Jolla, CA.

4.   DOCK [I. D. Kuntz et al, "A Geometric Approach to Macromolecule-Ligand Interactions", J. Mol. Biol., 161:269-288 (1982)]. DOCK is available from University of California, San Francisco, CA.

Once suitable chemical entities or fragments have been selected, they can be assembled into a single compound or inhibitor. Assembly may be proceed by visual inspection of the relationship of the fragments to each other on the three-dimensional image displayed on a computer screen in relation to the structure coordinates of FabH. This would be followed by manual model building using software such as Quanta or Sybyl.

Useful programs to aid one of skill in the art in connecting the individual chemical entities or fragments include:

1.   CAVEAT [P. A. Bartlett et al, "CAVEAT: A Program to Facilitate the Structure-Derived Design of Biologically Active Molecules", in Molecular Recognition in Chemical and Biological Problems", Special Pub., Royal Chem. Soc. 78, pp. 182-196 (1989)]. CAVEAT is available from the University of California, Berkeley, CA.

2.   3D Database systems such as MACCS-3D (MDL Information Systems, San Leandro, CA). This area is reviewed in Y. C. Martin, "3D Database Searching in Drug Design", J. Med. Chem., 35:2145-2154 (1992).

3.   HOOK (available from Molecular Simulations, Burlington, MA).

Instead of proceeding to build a FabH inhibitor in a step-wise fashion one fragment or chemical entity at a time as described above, inhibitory or other FabH binding compounds may be designed as a whole or "de novo" using either an empty active site or optionally including some portion(s) of a known inhibitor(s). These methods include:

1.   LUDI [H.-J. Bohm, "The Computer Program LUDI: A New Method for the De Novo Design of Enzyme Inhibitors", J. Comp. Aid. Molec. Design, 6:61-78 (1992)]. LUDI is available from Biosym Technologies, San Diego, CA.

2.   LEGEND [Y. Nishibata and A. Itai, Tetrahedron, 47:8985 (1991)]. LEGEND is available from Molecular Simulations, Burlington, MA.

3.   LeapFrog (available from Tripos Associates, St. Louis, MO).

Other molecular modelling techniques may also be employed in accordance with this invention. See, e.g., N. C. Cohen et al, "Molecular Modeling Software and Methods for Medicinal Chemistry", J. Med. Chem., 33:883-894 (1990). See also, M. A. Navia and M. A. Murcko, "The Use of Structural Information in Drug Design", Current Opinions in

Structural Biology, 2:202-210 (1992). For example, where the structures of test compounds are known, a model of the test compound may be superimposed over the model of the structure of the invention. Numerous methods and techniques are known in the art for performing this step, any of which may be used. See, e.g., P.S. Farmer, Drug Design,

5   Ariens, E.J., ed., Vol. 10, pp 119-143 (Academic Press, New York, 1980); U.S. Patent No. 5,331,573; U.S. Patent No. 5,500,807; C. Verlinde, Curr. Biol., 2:577-587 (1994); and I. D. Kuntz, Science, 257:1078-1082 (1992). The model building techniques and computer evaluation systems described herein are not a limitation on the present invention.

Thus, using these computer evaluation systems, a large number of compounds may

10   be quickly and easily examined and expensive and lengthy testing avoided. Moreover, the need for actual synthesis of many compounds is effectively eliminated.

Once identified by the modelling techniques, the FabH inhibitor may be tested for bioactivity using standard techniques. For example, structure of the invention may be used in binding assays using conventional formats to screen inhibitors. One particularly suitable

15   assay format includes the enzyme-linked immunosorbent assay (ELISA). Other assay formats may be used; these assay formats are not a limitation on the present invention.

In another aspect, the FabH structure of the invention permit the design and identification of synthetic compounds and/or other molecules which are characterized by the conformation of FabH of the invention. Using known computer systems, the

20   coordinates of the FabH structure of the invention may be provided in machine readable form, the test compounds designed and/or screened and their conformations superimposed on the structure of the FabH of the invention. Subsequently, suitable candidates identified as above may be screened for the desired FabH inhibitory bioactivity, stability, and the like.

Once identified and screened for biological activity, these inhibitors may be used

25   therapeutically or prophylactically to block FabH activity, and thus, bacterial replication.

The following examples illustrate various aspects of this invention. These examples do not limit the scope of this invention which is defined by the appended claims.

Example 1 - The Expression of FabH from *Escherichia coli* in *Escherichia coli*.

30   The strategy for the expression of the FabH from *Escherichia coli*, using *Escherichia coli* as a host was based on the PCR amplification of the *fabH* gene and the introduction of suitable restriction sites that allowed the cloning of the *fabH*-containing DNA fragment in the pET29 expression vector. After the PCR amplification the insert of the resultant recombinant plasmid, (pET29c hereafter), was sequenced to verify the absence

of artifacts introduced by the *Taq* polymerase reaction. Expression was monitored by SDS-polyacrylamide gel analysis.

A.   Bacterial strains, Plasmids and Medium

The *Escherichia coli* strains used were: MAXEfficiency DH10B

5   Competent Cells Genotype: F⁻ *mcrA* Δ*(mrr-hsd*RMS-*mcr*BC) φ80d*lac*ZΔM15 Δ*lac*X74 *deo*R *rec*A1 *ara*D139 Δ*(ara, leu)*7697 *galU galK* λ⁻ *rpsL nupG*. *E. coli* cells were grown at 37°C in Luria Bertani broth (LB). These strains may all be obtained from commercial sources. BL21(DE3) competent cells for protein expression purchased by Novagen. The protocol used to make them electroporation-competent was the one provided by Invitrogen.

10   The plasmid used was pET29 [Novagen]. A detailed description of pET29 is provided in Figure 2. Briefly, pET29 is an expression vector of *E.coli* which is based on the T7 promoter-driven system and allows the selection of the recombinant clones by kanamycin resistance.

15   LB Medium. Per liter:

Bacto-tryptone	10 g
Bacto-yeast extract	5 g
NaCl	5 g

For plasmid propagation 0.1mg/ml of kanamycin was added to the medium.

B.   DNA manipulations

20   Plasmid DNA was prepared by the rapid alkaline method (Sambrook et al, 1989). Transformations of *E. coli* cells were carried out according to the protocol provided with the DH10B or the electroporation method. The plasmids for sequencing were purified using QIAGEN mini-prep kit [QIAGEN]. DNA sequencing was carried out on supercoiled plasmid DNA by the dideoxy chain-termination method using the Thermo Sequenase cycle

25   sequencing kit [ABI, BigDye, Applied BioSystems, USA]. Synthetic oligonucleotides [ordered in-house] were used as primers. Restriction enzymes and T4 DNA ligase were obtained from Gibco BRL (Life Technologies) and the experiments were carried out following the instructions provided by the suppliers.

The *fabH* gene from *E.coli* cloned in the pET29 vector was amplified by

30   PCR using the primers:

(5'-TATACATATGTATACGAAGATTATTGGT-3'; SEQ ID NO:2) and:

40

(5'-ATATGGATCCCTAGAAACGAACCAGCGCGG-3'; SEQ ID NO:3).

     NdeI and *BamHI* restriction sites were incorporated at the 5' and 3' ends respectively of each primer to facilitate ligation of the amplified DNA into vectors. Plasmid DNA (480 ng) was amplified in 100 ul of PCR mixture containing 200 uM

5   deoxynucleotide triphosphates (dNTPs), 0.20 mM oligonucleotide primers, the manufacturer's buffer and 2.5 U of *pfu* (Stratagene). The following cycling parameters were used:

              94°C 4 min

              94°C 1 min, 55°C 40 sec, 72°C 1 min (30 cycles)

10   72°C 2 min

              4°C

Polymerase chain reaction (PCR) was performed using the GeneAmp, PCR System 2400 [Perkin Elmer Cetus Co]. PCR-amplified DNA fragments were purified using Qiaquick PCR Purification kit for Rapid Purification of DNA Fragments [Qiagen].

15   **C. Cloning of the *fabH* gene of *E. coli* in the expression vector pET29 of *E. coli*.**

     The cloning strategy is shown in Figure 2. PCR amplification of the *fabH* gene from *E. coli* using the primers AKK2 and AKK3 resulted in a DNA fragment of about 960 bp. This fragment was purified with Qiaquick PCR purification kit protocol (Qiagen) digested with *NdeI and BamHI*, purified, ligated overnight to the *NdeI and BamHI* sites of

20   already digested vector pET29 to obtain the recombinant plasmid pET29c. The ligation mix was used to transform *E. coli* DH10B competent cells. The construction of pET29c was initially confirmed by restriction analysis of the plasmid purified from the transformants. The amplification with *Taq* DNA polymerase made the sequencing of the *fabH* of pET29c an obligatory step to confirm that no changes were introduced due to the

25   low fidelity of this enzyme. Sequence analysis was accomplished by using T7 promoter and terminator primers. The sequencing of both strands showed that no artifacts had been introduced during the amplification process.

          D. Small-scale production of FabH from *E. coli* in *E. coli*

     The plasmid pET29c and the negative control pET29 (vector without

30   insert) were used to transform the *E. coli* BL21(DE3) host strain. Single clones of BL21(DE3): pET29c cells were grown overnight at 37°C in 2 ml of LB medium in the presence of 0.1 mg/ml kanamycin. The cells were then diluted 100-fold in 10 ml LB with kanamycin. When the cultures reached a value of 0.5 at OD_{600} the *fabH* expression was induced by addition of isopropyl-thio-galactoside (IPTG) at 0.5 mM of final concentration.

After this induction 2 ml samples were taken at different times (1 and 2 hours). The cells were harvested in a microfuge for 3 min, the pellets were washed with 20 mM Tris-HCl pH 8, 1mM PMSF and resuspended in 100 ul of SDS-PAGE gel-loading buffer. The cells were broken by sonication (15 seconds). The samples were then boiled for 10 minutes and after

5   one spin, 10 ml fractions were analyzed by SDS-PAGE according to the methods of Laemmli [U. K. Laemmli, Nature 227, 680-685 (1970)]. The 4-12% polyacrylamide gels [NOVEX] were stained with Coomassie blue. As shown in Figure 3 good expression levels were detected from the early stages after induction with IPTG. The evidence was the presence of a prominent band (lanes 2, 4 and 6 in Figure 3) that was in good agreement

10 with the M_r predicted from the primary sequence. The FabH protein has a theoretical molecular weight of about 33,514 Da.

Example 2 - Large Scale Growth and Purification of FabH

A.   **Large Scale Growth**

A 4 liter fermentation of *E.coli* BL21(DE3): pET29c was carried out in

15 Luria Bertani medium (LB), containing 100 ug/ml kanamycin. The 8x500 ml flasks were inoculated at 1% (v/v) from an overnight secondary seed culture in single strength LB medium, containing 100 mg/ml kanamycin. The flasks were incubated at 37°C, agitated at 250 rpm in a benchtop shaker. The OD at 600 nm was monitored, and at 0.5 absorbance units, FabH expression was induced with the addition of isopropyl-thiogalactosidase to 0.5

20 mM and the cells harvested by centrifugation in a Sorval CSA rotor, 2 hours post induction. A total of 20 grams of cell paste was recovered.

LB Medium, per liter, contains the following components. The medium was supplied by the in-house laboratory.

Single strength

25 Bacto Tryptone   10 g

Bacto Yeast Extract   5 g

Sodium Chloride   5 g

B.   **Purification**

1)   **Lysis**

30   12.5 g of cells of *E. coli* overexpressing *E. coli* FabH obtained as described above, were resuspended in 140 ml of 20 mM Tris pH 7.9, 50 mM NaCl, 1mM EDTA, 1mM DTT, 10% glycerol, 1 mM PMSF (buffer A). Lysozyme (Sigma Chemicals: hen egg) was added to a final concentration of 1 mg/ml. Cells were incubated at 37°C for 20min. The cells were then lysed by sonication in an ice water bath (4x30sec). DNAse

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(Sigma; bovine pancreas type 1) was added along with MgCl$_2$ and held at 37°C for 5 minutes. The solution was centrifuged in a Beckman JA-HS centrifuge at 14,000 g for 60 minutes using a Beckman JA-14 rotor.

2) Anion exchange

All chromatography was performed on a Pharmacia chromatography system, fitted with a UV detector (Pharmacia, Monitor UV-1). UV (at 280 nm) was monitored during all operations. All operations were performed at 4°C.

The supernatant from 1) was loaded onto a Q-Sepharose high performance (Pharmacia) column of 50 ml packed into a Pharmacia XK-26 column. The column was equilibrated with buffer A prior to loading. The column was then washed with buffer A (250 ml) at 4 ml/min, and eluted with a linear gradient of buffer A to 1M NaCl in buffer A over 80 minutes at 4 ml/min. The eluate was fractionated into 8 ml fractions using a Pharmacia FRAC 200.

The eluted fractions were assayed for FabH activity by measurement of incorporation of [^{14}C]Acetyl-CoA to Malonyl-ACP and , and for protein by the Bradford method. Active fractions were analyzed by reducing SDS-PAGE (NOVEX, NuPAGE Bis-Tris 4-12 % gradient gel). Active fractions pooled together and dialyzed against Buffer A.

3) Anion Exchange chromatography

The dialyzed material was loaded onto a MonoQ column equilibrated with buffer A (Pharmacia, 5/5). The column was washed with 20 ml of the equilibration buffer until 280 nm absorbance returned to base line and then eluted with a linear gradient of equilibration buffer to buffer A over 90 minutes at 0.5 ml/min. Fractions were pooled together, collected, assayed for FabH activity.

4) Hydroxyapatite/ buffer exchange

Eluted fractions are collected (1 ml fraction) and assayed for FabH activity and protein. Active fractions are pooled and the volume was doubled with Buffer B [20 mM Tris-HCl pH 7.4, 50 mM NaCl, 1 mM DTT and 10% glycerol] to reduce the salt concentration in half. The active eluate was loaded in a hydroxyapatite column and eluted with 0.5 M Potassium Phosphate pH 7.4. The active enzyme was buffer exchanged with 20 mM Tris pH 7.4, 50 mM NaCl 2 mM DTT. This product was greater than 97% purity by SDS PAGE and the activity showed an overall process yield of 60 % from 1). N-terminal amino acid analysis confirmed identity.

Example 3 - Fermentation, Purification and Characterization of seleno-methionine derivative of *Escherichia coli* FabH

A. Fermentation

To obtain soluble selmet-FabH for purification and crystallization studies, E. coli strain

5   BL21 (DE3) was transformed with pET29c FabH. 50 ul of the seed culture expressing FabH gene product was inoculated into 100 ml of Luria broth, containing kanamycin (50 ug/ml) and glucose (0.6%). On reaching target density of 2 OD, the cells from the seed culture were isolated by centrifugation, resuspended in 100 ml of M9 minimal medium containing 1 mM $CaCl_2$, 1 mM $MgSO_4$, kanamycin (50 ug/ml) and glucose (0.6% w/v).

10   The resuspended pellets were then added to 900 ml of the same medium and the cells were grown at 37 C to mid-log phase, A_{600} of 1.5, at which point lysine, phenylalanine, threonine at 100 mg/l each, and selenomethionine, isoleucine, leucine, and valine at 50 mg/l were added. The culture was shaken for 15 minutes, and then induced with 0.5mM isopropyl b-D-thiogalactopyranoside (IPTG). The culture was grown for 13 hours, and

15   harvested by centrifugation (speed). 5 ml aliquots were taken prior to and during induction to monitor the expression of selenomethionine FabH. 12g of cell paste (wet wt) was recovered from 5L. In addition, to compare the expression of selenomethionine derivative to that of wt FabH, a one l culture was prepared under identical conditions except that the cells were grown in LB media.

20   **B. Purification**

All lysis and purification steps were carried out using degassed buffers in a cold room or on ice. 4.5 g of E. coli cells over expressing Fab H were resuspended in 50 ml of 20 mM Tris, 50 mM sodium chloride, 10% glycerol, 0.2 mM PMSF, 2 mM DTT, pH 7.9 (buffer A). Cells were lysed twice at 10,000 psi using Microfluidizer (Microfluidics Corporation, MA).

25   Cell debris was removed by centrifugation (Sorvall RC-5B) at 35,000 g for 30 min. The supernatant was applied to a 2.6 x 4 cm Source Q column (Pharmacia) equilibrated in buffer A. The column was washed with 10 column volumes of buffer A, and eluted with a 10 column volume gradient of 0 to 1.0 M NaCl in buffer A. Eluted fractions were analyzed by 10% SDS-PAGE under reducing conditions. Fab H eluted at 0.2 - 0.25 M NaCl. Fab H

30   containing fractions were pooled and applied to a 2.6 x 6 cm Hydroxyapatite column (Bio-Rad, Type I, 40u) equilibrated in buffer A. The column was eluted with a 30 column volume linear gradient of buffer A to 400 mM potassium phosphate, 10% glycerol, 2 mM DTT. Fab H, which eluted at 80-180 mM potassium phosphate, was diluted 1:2 with 50 mM Tris, 200 mM NaCl, 10% glycerol, 2 mM DTT, pH 7.5 (buffer B) and applied to a 1.6 X 7.5

cm Blue Sepharose column (Pharmacia) equilibrated in buffer B. The column was eluted with buffer B containing 1 M NaCl. Blue Sepharose eluted Fab H fractions were next applied to a 2.6 x 60 cm Superdex 200 size exclusion column (Pharmacia) equilibrated in 20 mM Tris, 50 mM NaCl, 2 mM DTT, pH 7.4. A total of 23 mg of Fab H was recovered

5   which was concentrated to 13 mg/ml using Amicon 3 filtration device.

C. Characterization

i). Mass Spectoscopy

Matrix-assisted laser desorption ionization mass spectrometry (MALDI-MS) data were

10   obtained on a PerSeptive Biosystems Voyager RP laser desorption time-of-flight mass spectrometer. Protein samples were prepared for analysis by diluting analyte 1:5 with 3,5-Dimethoxy-4-hydroxy-cinnamic acid (10mg/ml in 2:1 0.1% trifluoroacetic acid/acetonitrile) for a final concentration of 1-10 pmol/ul. Bovine Beta lactoglobulin A (Sigma) was included as an internal calibrant (MH^+ 18364 Da). Desorption/ionization was

15   accomplished using photon irradiation from a 337-nm pulsed nitrogen laser and 30-keV accelerating energy. Spectra were averaged over ca. 100 laser scans.

The predicted molecular mass for native FabH is 33516 Da. MALDI-MS analysis of the selenomethionyl incoporated FabH protein construct provided a mass of 33,889 Da. This is in close agreement with the predicted +375Da shift in mass expected for the sulfur to

20   selenium side-chain substitution of eight methionine residues within the protein (33,891 Da theoretical).

ii). N-terminal sequence analysis

Sequence analysis was performed on a Hewlett-Packard G1000A N-terminal Protein Sequencer with on-line PTH identification using an HP1100 HPLC. Samples were applied

25   directly to biphasic sequencing cartridges and standard 3.1 sequencing method cycles were used.

N-terminal sequencing results showed negligible native methionine in the first residue. Instead, a unique PTH (phenylthiohydantoin) derivative was observed which eluted 1.6 minutes later than PTH-methionine, and did not coelute with any natural PTH-amino acid

30   derivatives. The increase in hydrophobicity is consistent with the direct detection of the PTH-selenomethionyl amino acid derivative.

D. Measurement of ß-ketoacyl-ACP synthase III activity.

The enzyme catalyses the condensation of acetyl-CoA with malonyl-ACP to form acetoacetyl-ACP. The reaction can be described by three distinct steps: (a) the acyl group

of acetyl-CoA is transferred to the active site cysteine resulting in a acyl-enzyme thioester; (b) carbanion formation.by the decarboxylation of malonyl-ACP; and (c) carbon-carbon bond formation by nucleophillic attack of the carbanion onto the carbonyl carbon atom of the acyl-enzyme thioester to yield the acetoacetyl-ACP product.

5   This reaction can be assayed in order to characterize the enzyme or identify specific inhibitors of its activity in two ways:

(1)   Radiolabeled acetoacetyl-ACP formation can be specifically determined using [3H]-acetyl-CoA and malonyl-ACP. The [3H]-acetyl-CoA substrate is soluble in 10%TCA while the resulting [3H]-acetoacetyl-ACP is not. A reaction mixture containing 100mM

10   sodium phosphate buffer pH7.0, 1mM DTT, 34uM acetyl-CoA, 0.15uM [3H]-acetyl-CoA (specific activity 25Ci/mmol), and 7uM malonyl-ACP is prepared and transfered to a microtiter plate with or without inhibitors already added. The enzyme is added last to start the reaction and the plate is incubated at 37 degrees C. Ten percent TCA is added to stop the reaction, and then 50ug of BSA as a carrier. Stopped reactions are filtered and washed

15   2 times with 10% TCA on Wallac GF/A filtermats using a TomTec harvester. The filtermats are dried at 60 degrees C and the radioactivity quantified using Wallac Betaplate scintillation cocktail and a Wallac Microbeta 1450 liquid scintillation counter. IC50s are generated using Grafit 4.0 software and solved using the equation $v = Vmax/(1 + I/IC50)$.

20   (2)   FabG coupling can also be used to measure FabH production of acetoacetyl-ACP by following NADPH consumption at 340nm. FabG (ß-ketoacyl-ACP reductase) will specifically reduce the C3 carbonyl of acetoacetyl-ACP to form ß-hydroxybutyryl-ACP. This reduction requires the conversion of NADPH to form NADP+ which can be monitored by following the optical density at wavelength 340nm.

25   (3)   FabD coupling is an available assay option in the absence of purified malonyl-ACP. FabD (Malonyl-CoA:ACP transacylase) is responsible for malonic acid transfer from malonyl-CoA to ACP to form malonyl-ACP. This activity can be exploited by applying the techniques described in (1) above together with de novo malonyl-ACP from the FabD reaction.

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E.   Ligand binding to FabH.

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It is also possible to define ligand interactions with FabH in experiments that are not dependent upon enzyme catalyzed turnover of substrates. This type of experiment can be done in a number of ways:

(1)   Effects of ligand binding upon enzyme intrinsic fluorescence (e.g.

5   of tryptophan). Binding of either natural ligands or inhibitors may result in enzyme conformational changes which alter enzyme fluorescence. Using stopped-flow fluorescence equipment, this can be used to define the microscopic rate constants that describe binding. Alternatively, steady-state fluorescence titration methods can yield the overall dissociation constant for binding in the same way that these are accessed through enzyme inhibition

10   experiments.

(2)   Spectral effects of ligands. Where the ligands themselves are either fluorescent or possess chromophores that overlap with enzyme tryptophan fluorescence, binding can be detected either via changes in the ligand fluorescence properties (e.g. intensity, lifetime or polarization) or fluorescence resonance energy transfer

15   with enzyme tryptophans. The ligands could either be inhibitors or variants of the natural ligands.

(3)   Thermal analysis of the enzyme:ligand complex. Using calorimetric techniques (e.g. Isothermal Calorimetry, Differential Scanning Calorimetry) it is possible to detect thermal changes, or shifts in the stability of FabH which reports and

20   therefore allows the characterization of ligand binding.

Example 3 - Crystallization of _E. coli_ wild-type and selenomethionine mutant of FabH

A.   Crystallization

All crystals were grown at room temperature using the sitting-drop vapor diffusion

25   method. The drop solution was always a 1:1 mixture of the protein sample and the well solutions. For the crystal form 1 of the wild-type protein, the well solution contained 0.1 M HEPES buffer at pH 7.5 and 20% PEG8000. For the crystal form 2 of the selenomethionine mutant protein in complex with acetyl-CoA, the well solution contained 0.05 M Bis-Tris propane buffer at pH 7.0, 0.1 M $MgCl_2$ and 14% PEG6000. Crystals grew overnight and

30   are approximately 0.1 to 0.2 mm in sizes.

B.   X-ray Diffraction Characterization

All crystals were frozen in liquid nitrogen streams before their characterization using synchrotron X-ray radiation. Diffraction data for the apo form 1 crystal was collected to 2.0 Å resolution. The data is 97.1 % complete and 6 fold redundant with a merging R-

factor of 7.7 %. The crystal belongs to the orthorhombic spacegroup $P2_12_12_1$, with cell dimensions a = 63.1, b = 65.1 and c = 166.5 Å. For the Se-Met protein in complex with acetyl-CoA, data were collected at three different wavelengths: 0.9789, 0.9785 and 0.9414 Å. The three data set were of nearly identical quality, with about 80% completion, 6-fold

5   redundancy, 8.5 %

merging R-factor, and 1.9 Å resolution. The form 2 crystal belongs to the tetragonal spacegroup $P4_12_12$, with a = b = 72.4 and c = 102.8 Å.

C.   Structure Solution

The crystal structure of the Se-Met *E. coli* FabH mutant in complex with acetyl-

10   CoA was solved to 1.9 Å resolution using the MAD phasing technique with the data sets collected at three different wavelengths and the program SOLVE (Terwilliger & Berendzen, 1999, *Acta Cryst*. D55, 849-861). All eight Se-Met were located by SOLVE. The overall MAD phasing figure of merit was 0.6 to 1.9 Å resolution, and the overall Z score was as high as 148. The resulting electron density map was of very high quality. The

15   structure of the apo enzyme (crystal form 1) was solved with the molecular replacement method using the acetyl-CoA complex structure as the search model. This crystal form had a FabH dimer in the asymmetric unit, and the R-factor of the solution was only 33%. Two-fold averaged map was then calculated and used for model building.

D.   Model Building and Refinement

20   The electron density for the acetyl-CoA complex was very clear and a structure model for the whole FabH protein, the bound acetyl group and CoA, as well as 98 solvent molecules were built in the first round. Standard structural refinement protocols and manual model building led to the current model, which has an R-factor of 27 % to 1.9 Å resolution. The model for the apo FabH structure was also built readily, and refined to an

25   R-factor of 18.9 % (R_{free} of 24.4%) to 2.0 Å resolution. Both models have excellent geometry and do not have any outliers in the Ramanchandran plot, indicating high quality of the atomic coordinates, which contain an estimated error of less than 0.3 Å.

This invention is not to be limited in scope by the specific embodiments described herein. Indeed, various modifications of the invention in addition to those described herein

30   will become apparent to those skilled in the art from the foregoing description. Such modifications are intended to fall within the scope of the appended claims. The disclosures of the patents, patent applications and publications cited herein are incorporated by reference in their entireties.

WHAT IS CLAIMED IS:

1.   A composition comprising a *E. coli* FabH in crystalline form.

2.   The composition according to claim 1 wherein said FabH is a dimer.

3.   The composition according to claim 1 wherein said FabH comprises an active site cavity formed by amino acids comprising Cys112, His244 and Asn274

4.   The composition of claim 1 wherein said FabH is a *E. coli* FabH.

5.   The composition of claim 3 wherein said FabH is characterized by the coordinates selected from the group consisting of the coordinates of Figures 1-2 and Tables I, II, and III.

6.   A *E. coli* FabH crystal.

7.   A selenomethionine mutant crystal of a *E. coli* FabH.

8.   An isolated, properly folded FabH molecule or fragment thereof having a conformation comprising the protein coordinates of Figures 1-2 and Tables I, II, and III.

9.   The molecule according to claim 8 wherein said molecule is a dimer, wherein each monomer is characterized by two similar domains having core of five β-strands, each containing flanking helices, strands and loops, as illustrated in Fig. 3.

10.   The molecule according to claim 8 wherein said molecule is a dimer characterized by the dimer interface of Fig. 3.

11.   The molecule according to claim 10 which is *E. coli* FabH.

12.   A peptide, peptidomimetic or synthetic molecule which interacts competitively or non-competitively with the active site of a FabH of claim 1.

13.   A method of identifying an inhibitor compound capable of binding to, and inhibiting the enzymatic activity of, a *E. coli* FabH, said method comprising: introducing into a suitable computer program information defining an active site conformation of a *E. coli* FabH molecule comprising a conformation defined by the coordinates of Figures 1-2 and Tables I, II, and III, wherein said program displays the three-dimensional structure thereof; creating a three dimensional structure of a test compound in said computer program; displaying and superimposing the model of said test compound on the model of said active site; assessing whether said test compound model fits spatially into the active site; incorporating said test compound in a biological activity assay for a FabH characterized by said active site; and determining whether said test compound inhibits enzymatic activity in said assay.

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14.   The method according to claim 13 wherein said FabH molecule is a dimer, wherein each monomer is characterized by two similar domains having core of five β-strands, each containing flanking helices, strands and loops, as illustrated in Fig. 3.

15.   A method of identifying an inhibitor compound capable of binding to, and

5   inhibiting the enzymatic activity of, a *E. coli* FabH, said method comprising: introducing into a suitable computer program information defining an active site conformation of a FabH molecule comprising a conformation defined by the coordinates of Figures 1-2 and Tables I, II, and III, wherein said program displays the three-dimensional structure thereof; creating a three dimensional structure of a test compound in said computer program;

10   displaying and superimposing the model of said test compound on the model of said active site; assessing whether said test compound model fits spatially into the active site; incorporating said test compound in a biological activity assay for a FabH characterized by said active site; and determining whether said test compound inhibits enzymatic activity in said assay.

15   16.   The method according to claim 15 wherein said FabH molecule is a dimer, wherein each monomer is characterized by two similar domains having core of five β-strands, each containing flanking helices, strands and loops, as illustrated in Fig. 3.

17.   A peptide, peptidomimetic or synthetic molecule identified by the method of claim 13 or 15.

20   18.   A method for solving a crystal form comprising using the structural coordinates of a *E. coli* FabH crystal or portions thereof, to solve a crystal form of a mutant, homologue or co-complex of said FabH by molecular rearrangement.

19.   A method of drug design comprising the step of using the structural coordinates of a *E. coli* FabH crystal to computationally evaluate a chemical entity for

25   associating with the active site and substrate binding sites of *E. coli* FabH.

20.   The method of drug design according to claim 19 comprising the step of using the structure coordinates of *E. coli* FabH to identify an intermediate in a chemical reaction between said FabH and a compound with is a substrate or inhibitor of said enzyme.

21.   The method according to claim 20, wherein said entity is a competitive or

30   non-competitive inhibitor of a *E. coli* FabH.

22.   The method of drug design according to claim 19, using the structure of a FabH homologue that has similar amino acid identities as well as spacial arrangements as those of *E. coli* FabH listed in Tables I-III.

23.   The method of drug design according to claim 20 using the structure of a FabH homologue that has similar amino acid identities as well as spacial arrangements as those of *E. coli* FabH listed in Tables I-III.

24.   The method of drug design according to claim 21 using the structure of a

5   FabH homologue that has similar amino acid identities as well as spacial arrangements as those of *E. coli* FabH listed in Tables I-III.

25.   The method according to claim 19 wherein said structure coordinates comprise the coordinates of Figures 1-2 and Tables I, II, and III.

26.   The method according to claim 20 wherein said structure coordinates

10   comprise the coordinates of Figures 1-2 and Tables I, II, and III.

27.   The method according to claim 21 wherein said structure coordinates comprise the coordinates of Figures 1-2 and Tables I, II, and III.

FIGURE 1

E coli FabH Apo Structure at 2.0 A Resolution
Form1 with a dimer per asymmetric unit
R-factor 18.9%, Rfree 24.4%, Coordinates error 0.24 A

REMARK DATE:29-Apr-99 18:01:02   created by user: qiux1
CRYST1   63.060   65.080   166.500   90.00   90.00   90.00 P212121
SCALE1   0.01586 0.00000 0.00000   0.00000
SCALE2   0.00000 0.01537 0.00000   0.00000
SCALE3   0.00000 0.00000 0.00601   0.00000
ATOM   1 CB MET   1   23.140 30.194 42.577 1.00 41.46
ATOM   2 CG MET   1   23.281 28.807 41.951 1.00 47.17
ATOM   3 SD MET   1   24.374 28.808 40.507 1.00 57.25
ATOM   4 CE MET   1   24.481 27.028 40.084 1.00 54.93
ATOM   5 C   MET   1   21.084 31.397 41.754 1.00 33.04
ATOM   6 O   MET   1   20.542 32.451 42.113 1.00 31.92
ATOM   7 N   MET   1   23.093 32.629 42.168 1.00 38.52
ATOM   8 CA MET   1   22.610 31.314 41.649 1.00 36.58
ATOM   9 N   TYR   2   20.401 30.331 41.352 1.00 27.13
ATOM   10 CA TYR   2   18.955 30.246 41.481 1.00 24.56
ATOM   11 CB TYR   2   18.212 30.291 40.144 1.00 23.66
ATOM   12 CG TYR   2   18.159 31.662 39.535 1.00 25.84
ATOM   13 CD1 TYR   2   19.057 32.031 38.532 1.00 26.50
ATOM   14 CE1 TYR   2   19.036 33.314 37.991 1.00 29.27
ATOM   15 CD2 TYR   2   17.234 32.609 39.981 1.00 27.39
ATOM   16 CE2 TYR   2   17.205 33.896 39.443 1.00 28.50
ATOM   17 CZ TYR   2   18.111 34.239 38.452 1.00 29.35
ATOM   18 OH TYR   2   18.106 35.515 37.923 1.00 38.60
ATOM   19 C   TYR   2   18.706 28.919 42.162 1.00 22.69
ATOM   20 O   TYR   2   19.625 28.110 42.336 1.00 19.19
ATOM   21 N   THR   3   17.456 28.696 42.518 1.00 19.86
ATOM   22 CA THR   3   17.070 27.500 43.200 1.00 19.05
ATOM   23 CB THR   3   16.389 27.845 44.567 1.00 19.11
ATOM   24 OG1 THR   3   17.275 28.627 45.394 1.00 19.53
ATOM   25 CG2 THR   3   16.014 26.583 45.307 1.00 17.21
ATOM   26 C   THR   3   16.064 26.750 42.363 1.00 17.51
ATOM   27 O   THR   3   15.152 27.345 41.797 1.00 18.61
ATOM   28 N   LYS   4   16.261 25.444 42.256 1.00 17.85
ATOM   29 CA LYS   4   15.324 24.588 41.557 1.00 18.67
ATOM   30 CB LYS   4   16.000 23.816 40.417 1.00 19.46
ATOM   31 CG LYS   4   16.074 24.601 39.142 1.00 23.62
ATOM   32 CD LYS   4   16.538 23.761 37.965 1.00 28.59

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ATOM	33	CE	LYS	4	16.593	24.622	36.692	1.00	31.11
ATOM	34	NZ	LYS	4	17.222	23.947	35.527	1.00	32.73
ATOM	35	C	LYS	4	14.764	23.603	42.571	1.00	17.80
ATOM	36	O	LYS	4	15.452	23.227	43.532	1.00	17.74
ATOM	37	N	ILE	5	13.489	23.270	42.416	1.00	15.66
ATOM	38	CA	ILE	5	12.855	22.288	43.270	1.00	14.79
ATOM	39	CB	ILE	5	11.358	22.592	43.463	1.00	11.84
ATOM	40	CG2	ILE	5	10.667	21.415	44.122	1.00	8.67
ATOM	41	CG1	ILE	5	11.183	23.857	44.313	1.00	10.91
ATOM	42	CD1	ILE	5	9.743	24.337	44.391	1.00	11.98
ATOM	43	C	ILE	5	13.053	20.978	42.504	1.00	15.34
ATOM	44	O	ILE	5	12.392	20.724	41.502	1.00	17.91
ATOM	45	N	ILE	6	14.023	20.185	42.941	1.00	14.06
ATOM	46	CA	ILE	6	14.351	18.928	42.280	1.00	13.23
ATOM	47	CB	ILE	6	15.887	18.724	42.233	1.00	14.75
ATOM	48	CG2	ILE	6	16.534	19.845	41.407	1.00	14.45
ATOM	49	CG1	ILE	6	16.465	18.666	43.656	1.00	15.51
ATOM	50	CD1	ILE	6	17.923	18.231	43.712	1.00	13.43
ATOM	51	C	ILE	6	13.682	17.688	42.854	1.00	13.16
ATOM	52	O	ILE	6	13.768	16.609	42.285	1.00	15.63
ATOM	53	N	GLY	7	13.027	17.828	43.989	1.00	13.07
ATOM	54	CA	GLY	7	12.353	16.692	44.567	1.00	13.27
ATOM	55	C	GLY	7	11.178	17.105	45.434	1.00	14.30
ATOM	56	O	GLY	7	11.261	18.106	46.143	1.00	13.93
ATOM	57	N	THR	8	10.071	16.372	45.328	1.00	16.13
ATOM	58	CA	THR	8	8.881	16.640	46.137	1.00	16.82
ATOM	59	CB	THR	8	7.705	17.217	45.305	1.00	18.92
ATOM	60	OG1	THR	8	7.359	16.318	44.232	1.00	18.30
ATOM	61	CG2	THR	8	8.051	18.595	44.751	1.00	18.45
ATOM	62	C	THR	8	8.448	15.361	46.849	1.00	17.72
ATOM	63	O	THR	8	8.685	14.253	46.362	1.00	19.71
ATOM	64	N	GLY	9	7.828	15.522	48.017	1.00	17.09
ATOM	65	CA	GLY	9	7.361	14.380	48.764	1.00	13.64
ATOM	66	C	GLY	9	6.209	14.760	49.671	1.00	12.88
ATOM	67	O	GLY	9	5.983	15.930	49.944	1.00	12.20
ATOM	68	N	SER	10	5.418	13.772	50.059	1.00	13.41
ATOM	69	CA	SER	10	4.287	14.009	50.929	1.00	16.04
ATOM	70	CB	SER	10	3.125	14.713	50.201	1.00	19.24
ATOM	71	OG	SER	10	2.434	13.895	49.292	1.00	19.41
ATOM	72	C	SER	10	3.844	12.741	51.630	1.00	17.62
ATOM	73	O	SER	10	4.192	11.634	51.214	1.00	19.53
ATOM	74	N	TYR	11	3.132	12.918	52.736	1.00	18.52

ATOM	75	CA	TYR	11	2.621	11.808	53.522	1.00	16.51
ATOM	76	CB	TYR	11	3.660	11.319	54.544	1.00	17.18
ATOM	77	CG	TYR	11	3.062	10.328	55.514	1.00	17.69
ATOM	78	CD1	TYR	11	2.917	8.987	55.155	1.00	17.74
ATOM	79	CE1	TYR	11	2.269	8.087	55.980	1.00	20.88
ATOM	80	CD2	TYR	11	2.548	10.748	56.753	1.00	19.11
ATOM	81	CE2	TYR	11	1.890	9.847	57.596	1.00	18.44
ATOM	82	CZ	TYR	11	1.758	8.512	57.199	1.00	20.58
ATOM	83	OH	TYR	11	1.121	7.589	58.004	1.00	20.53
ATOM	84	C	TYR	11	1.364	12.241	54.273	1.00	14.15
ATOM	85	O	TYR	11	1.340	13.290	54.901	1.00	13.17
ATOM	86	N	LEU	12	0.325	11.422	54.206	1.00	14.55
ATOM	87	CA	LEU	12	-0.913	11.696	54.915	1.00	17.96
ATOM	88	CB	LEU	12	-2.042	12.027	53.934	1.00	19.14
ATOM	89	CG	LEU	12	-1.776	13.195	52.976	1.00	16.97
ATOM	90	CD1	LEU	12	-2.708	13.027	51.798	1.00	22.75
ATOM	91	CD2	LEU	12	-1.987	14.530	53.654	1.00	14.39
ATOM	92	C	LEU	12	-1.239	10.439	55.721	1.00	18.49
ATOM	93	O	LEU	12	-1.115	9.324	55.220	1.00	17.63
ATOM	94	N	PRO	13	-1.619	10.607	57.000	1.00	19.72
ATOM	95	CD	PRO	13	-1.832	11.913	57.640	1.00	16.50
ATOM	96	CA	PRO	13	-1.965	9.522	57.929	1.00	18.34
ATOM	97	CB	PRO	13	-2.534	10.265	59.144	1.00	18.64
ATOM	98	CG	PRO	13	-1.896	11.543	59.087	1.00	16.28
ATOM	99	C	PRO	13	-3.018	8.577	57.398	1.00	17.90
ATOM	100	O	PRO	13	-3.893	8.976	56.633	1.00	17.00
ATOM	101	N	GLU	14	-3.010	7.359	57.919	1.00	18.39
ATOM	102	CA	GLU	14	-3.956	6.363	57.475	1.00	19.37
ATOM	103	CB	GLU	14	-3.530	4.979	57.950	1.00	19.74
ATOM	104	CG	GLU	14	-4.550	3.909	57.636	1.00	23.77
ATOM	105	CD	GLU	14	-4.074	2.508	57.960	1.00	28.92
ATOM	106	OE1	GLU	14	-2.915	2.341	58.392	1.00	32.53
ATOM	107	OE2	GLU	14	-4.865	1.561	57.762	1.00	36.16
ATOM	108	C	GLU	14	-5.411	6.661	57.849	1.00	20.82
ATOM	109	O	GLU	14	-6.308	6.492	57.022	1.00	22.24
ATOM	110	N	GLN	15	-5.659	7.123	59.068	1.00	21.21
ATOM	111	CA	GLN	15	-7.030	7.414	59.472	1.00	23.13
ATOM	112	CB	GLN	15	-7.121	7.682	60.980	1.00	25.43
ATOM	113	CG	GLN	15	-8.540	7.983	61.431	1.00	30.16
ATOM	114	CD	GLN	15	-8.667	8.193	62.927	1.00	33.89
ATOM	115	OE1	GLN	15	-7.813	7.774	63.705	1.00	34.76
ATOM	116	NE2	GLN	15	-9.750	8.829	63.334	1.00	36.55

ATOM	117	C	GLN	15	-7.614	8.600	58.699	1.00	22.20
ATOM	118	O	GLN	15	-6.963	9.631	58.508	1.00	21.67
ATOM	119	N	VAL	16	-8.878	8.463	58.318	1.00	21.26
ATOM	120	CA	VAL	16	-9.576	9.490	57.575	1.00	20.84
ATOM	121	CB	VAL	16	-9.869	9.002	56.114	1.00	23.32
ATOM	122	CG1	VAL	16	-10.956	9.845	55.456	1.00	20.00
ATOM	123	CG2	VAL	16	-8.587	9.086	55.283	1.00	19.00
ATOM	124	C	VAL	16	-10.865	9.902	58.278	1.00	20.75
ATOM	125	O	VAL	16	-11.606	9.059	58.762	1.00	22.01
ATOM	126	N	ARG	17	-11.082	11.204	58.405	1.00	19.30
ATOM	127	CA	ARG	17	-12.300	11.710	58.999	1.00	18.87
ATOM	128	CB	ARG	17	-12.014	12.906	59.898	1.00	17.00
ATOM	129	CG	ARG	17	-13.261	13.594	60.406	1.00	18.91
ATOM	130	CD	ARG	17	-12.944	14.561	61.531	1.00	20.14
ATOM	131	NE	ARG	17	-12.527	13.827	62.720	1.00	21.98
ATOM	132	CZ	ARG	17	-11.666	14.286	63.623	1.00	23.51
ATOM	133	NH1	ARG	17	-11.352	13.529	64.662	1.00	23.88
ATOM	134	NH2	ARG	17	-11.093	15.484	63.481	1.00	20.37
ATOM	135	C	ARG	17	-13.197	12.133	57.840	1.00	20.54
ATOM	136	O	ARG	17	-12.879	13.081	57.112	1.00	20.74
ATOM	137	N	THR	18	-14.263	11.364	57.624	1.00	20.00
ATOM	138	CA	THR	18	-15.224	11.621	56.560	1.00	21.80
ATOM	139	CB	THR	18	-15.910	10.313	56.077	1.00	24.76
ATOM	140	OG1	THR	18	-16.799	9.808	57.091	1.00	28.17
ATOM	141	CG2	THR	18	-14.882	9.254	55.771	1.00	23.87
ATOM	142	C	THR	18	-16.312	12.531	57.084	1.00	21.28
ATOM	143	O	THR	18	-16.456	12.710	58.297	1.00	22.59
ATOM	144	N	ASN	19	-17.123	13.051	56.181	1.00	21.27
ATOM	145	CA	ASN	19	-18.220	13.914	56.589	1.00	23.13
ATOM	146	CB	ASN	19	-18.821	14.599	55.382	1.00	23.15
ATOM	147	CG	ASN	19	-17.918	15.665	54.843	1.00	24.28
ATOM	148	OD1	ASN	19	-16.949	16.035	55.508	1.00	21.36
ATOM	149	ND2	ASN	19	-18.214	16.172	53.645	1.00	22.00
ATOM	150	C	ASN	19	-19.292	13.188	57.386	1.00	24.06
ATOM	151	O	ASN	19	-19.967	13.790	58.230	1.00	24.62
ATOM	152	N	ALA	20	-19.414	11.884	57.162	1.00	23.81
ATOM	153	CA	ALA	20	-20.384	11.085	57.898	1.00	24.28
ATOM	154	CB	ALA	20	-20.471	9.674	57.332	1.00	24.42
ATOM	155	C	ALA	20	-19.898	11.051	59.335	1.00	24.12
ATOM	156	O	ALA	20	-20.701	11.134	60.263	1.00	26.02
ATOM	157	N	ASP	21	-18.577	10.985	59.506	1.00	23.26
ATOM	158	CA	ASP	21	-17.968	10.964	60.830	1.00	23.71

ATOM	159	CB	ASP	21	-16.453	10.820	60.727	1.00	24.51
ATOM	160	CG	ASP	21	-16.022	9.472	60.177	1.00	28.86
ATOM	161	OD1	ASP	21	-14.924	9.372	59.585	1.00	27.43
ATOM	162	OD2	ASP	21	-16.779	8.503	60.327	1.00	33.78
ATOM	163	C	ASP	21	-18.303	12.261	61.559	1.00	26.29
ATOM	164	O	ASP	21	-18.690	12.250	62.735	1.00	26.97
ATOM	165	N	LEU	22	-18.185	13.376	60.842	1.00	25.21
ATOM	166	CA	LEU	22	-18.470	14.686	61.419	1.00	24.41
ATOM	167	CB	LEU	22	-17.994	15.798	60.483	1.00	19.85
ATOM	168	CG	LEU	22	-16.461	15.899	60.463	1.00	21.37
ATOM	169	CD1	LEU	22	-15.968	16.619	59.210	1.00	20.69
ATOM	170	CD2	LEU	22	-15.991	16.626	61.722	1.00	19.87
ATOM	171	C	LEU	22	-19.938	14.878	61.762	1.00	25.57
ATOM	172	O	LEU	22	-20.267	15.578	62.717	1.00	24.40
ATOM	173	N	GLU	23	-20.817	14.249	60.993	1.00	28.06
ATOM	174	CA	GLU	23	-22.248	14.366	61.240	1.00	32.17
ATOM	175	CB	GLU	23	-23.039	13.524	60.227	1.00	33.66
ATOM	176	CG	GLU	23	-23.056	14.115	58.813	1.00	36.27
ATOM	177	CD	GLU	23	-23.838	13.264	57.805	1.00	39.27
ATOM	178	OE1	GLU	23	-24.330	13.828	56.803	1.00	40.47
ATOM	179	OE2	GLU	23	-23.958	12.031	58.001	1.00	40.70
ATOM	180	C	GLU	23	-22.536	13.919	62.678	1.00	32.48
ATOM	181	O	GLU	23	-23.325	14.545	63.400	1.00	32.29
ATOM	182	N	LYS	24	-21.809	12.894	63.112	1.00	32.31
ATOM	183	CA	LYS	24	-21.964	12.376	64.450	1.00	33.87
ATOM	184	CB	LYS	24	-21.556	10.906	64.482	1.00	37.67
ATOM	185	CG	LYS	24	-22.197	10.140	65.632	1.00	44.91
ATOM	186	CD	LYS	24	-21.466	8.841	65.914	1.00	47.37
ATOM	187	CE	LYS	24	-22.193	7.997	66.939	1.00	45.09
ATOM	188	NZ	LYS	24	-21.947	6.579	66.599	1.00	46.57
ATOM	189	C	LYS	24	-21.182	13.171	65.520	1.00	32.57
ATOM	190	O	LYS	24	-21.384	12.961	66.719	1.00	33.87
ATOM	191	N	MET	25	-20.286	14.059	65.093	1.00	28.30
ATOM	192	CA	MET	25	-19.482	14.854	66.017	1.00	26.57
ATOM	193	CB	MET	25	-18.056	14.972	65.498	1.00	22.90
ATOM	194	CG	MET	25	-17.324	13.679	65.433	1.00	24.59
ATOM	195	SD	MET	25	-15.792	13.895	64.554	1.00	23.56
ATOM	196	CE	MET	25	-14.900	14.914	65.699	1.00	21.95
ATOM	197	C	MET	25	-20.019	16.262	66.284	1.00	27.24
ATOM	198	O	MET	25	-19.798	16.829	67.357	1.00	28.87
ATOM	199	N	VAL	26	-20.686	16.841	65.297	1.00	26.32
ATOM	200	CA	VAL	26	-21.231	18.186	65.415	1.00	25.07

ATOM	201	CB	VAL	26	-20.247	19.270	64.834	1.00	21.46
ATOM	202	CG1	VAL	26	-19.094	19.524	65.785	1.00	16.39
ATOM	203	CG2	VAL	26	-19.680	18.835	63.488	1.00	20.23
ATOM	204	C	VAL	26	-22.565	18.242	64.673	1.00	29.62
ATOM	205	O	VAL	26	-22.911	17.315	63.926	1.00	32.46
ATOM	206	N	ASP	27	-23.330	19.305	64.913	1.00	31.79
ATOM	207	CA	ASP	27	-24.631	19.512	64.264	1.00	34.09
ATOM	208	CB	ASP	27	-25.382	20.676	64.941	1.00	33.90
ATOM	209	CG	ASP	27	-26.756	20.946	64.329	1.00	33.87
ATOM	210	OD1	ASP	27	-27.405	19.981	63.874	1.00	33.63
ATOM	211	OD2	ASP	27	-27.188	22.128	64.320	1.00	33.76
ATOM	212	C	ASP	27	-24.281	19.866	62.829	1.00	34.61
ATOM	213	O	ASP	27	-24.180	21.040	62.480	1.00	33.94
ATOM	214	N	THR	28	-24.151	18.846	61.990	1.00	36.45
ATOM	215	CA	THR	28	-23.735	19.054	60.610	1.00	36.69
ATOM	216	CB	THR	28	-22.196	19.086	60.565	1.00	32.66
ATOM	217	OG1	THR	28	-21.760	20.076	59.636	1.00	33.79
ATOM	218	CG2	THR	28	-21.645	17.737	60.183	1.00	27.40
ATOM	219	C	THR	28	-24.238	17.990	59.627	1.00	38.85
ATOM	220	O	THR	28	-24.732	16.923	60.023	1.00	42.97
ATOM	221	N	SER	29	-24.085	18.278	58.339	1.00	37.36
ATOM	222	CA	SER	29	-24.504	17.346	57.302	1.00	34.73
ATOM	223	CB	SER	29	-25.874	17.739	56.752	1.00	35.58
ATOM	224	OG	SER	29	-25.800	18.913	55.959	1.00	35.91
ATOM	225	C	SER	29	-23.475	17.364	56.180	1.00	31.73
ATOM	226	O	SER	29	-22.929	18.416	55.846	1.00	32.40
ATOM	227	N	ASP	30	-23.199	16.188	55.632	1.00	29.45
ATOM	228	CA	ASP	30	-22.254	16.029	54.527	1.00	28.53
ATOM	229	CB	ASP	30	-22.421	14.625	53.924	1.00	28.41
ATOM	230	CG	ASP	30	-21.688	14.444	52.608	1.00	30.31
ATOM	231	OD1	ASP	30	-20.479	14.718	52.572	1.00	32.86
ATOM	232	OD2	ASP	30	-22.315	14.001	51.623	1.00	31.13
ATOM	233	C	ASP	30	-22.524	17.081	53.462	1.00	27.90
ATOM	234	O	ASP	30	-21.620	17.745	52.970	1.00	26.08
ATOM	235	N	GLU	31	-23.798	17.250	53.148	1.00	30.24
ATOM	236	CA	GLU	31	-24.220	18.198	52.145	1.00	33.48
ATOM	237	CB	GLU	31	-25.734	18.122	51.984	1.00	40.62
ATOM	238	CG	GLU	31	-26.172	18.050	50.541	1.00	53.11
ATOM	239	CD	GLU	31	-25.633	19.208	49.727	1.00	59.10
ATOM	240	OE1	GLU	31	-24.543	19.067	49.103	1.00	60.69
ATOM	241	OE2	GLU	31	-26.304	20.265	49.741	1.00	62.07
ATOM	242	C	GLU	31	-23.792	19.622	52.468	1.00	32.11

ATOM	243	O	GLU	31	-23.176	20.290	51.641	1.00	33.13
ATOM	244	N	TRP	32	-24.091	20.068	53.681	1.00	30.06
ATOM	245	CA	TRP	32	-23.725	21.413	54.092	1.00	28.93
ATOM	246	CB	TRP	32	-24.277	21.708	55.486	1.00	29.27
ATOM	247	CG	TRP	32	-24.036	23.126	55.939	1.00	31.13
ATOM	248	CD2	TRP	32	-22.895	23.622	56.644	1.00	32.44
ATOM	249	CE2	TRP	32	-23.118	25.005	56.890	1.00	35.25
ATOM	250	CE3	TRP	32	-21.707	23.038	57.096	1.00	32.45
ATOM	251	CD1	TRP	32	-24.880	24.197	55.779	1.00	33.86
ATOM	252	NE1	TRP	32	-24.333	25.331	56.351	1.00	35.49
ATOM	253	CZ2	TRP	32	-22.200	25.800	57.565	1.00	35.24
ATOM	254	CZ3	TRP	32	-20.793	23.832	57.765	1.00	34.43
ATOM	255	CH2	TRP	32	-21.046	25.197	57.994	1.00	36.72
ATOM	256	C	TRP	32	-22.203	21.582	54.091	1.00	27.24
ATOM	257	O	TRP	32	-21.675	22.617	53.674	1.00	26.75
ATOM	258	N	ILE	33	-21.503	20.566	54.581	1.00	26.32
ATOM	259	CA	ILE	33	-20.042	20.617	54.642	1.00	25.89
ATOM	260	CB	ILE	33	-19.459	19.370	55.333	1.00	25.18
ATOM	261	CG2	ILE	33	-17.925	19.444	55.366	1.00	26.64
ATOM	262	CG1	ILE	33	-20.024	19.253	56.744	1.00	18.01
ATOM	263	CD1	ILE	33	-19.621	18.008	57.421	1.00	19.10
ATOM	264	C	ILE	33	-19.432	20.755	53.258	1.00	24.76
ATOM	265	O	ILE	33	-18.630	21.650	53.022	1.00	23.20
ATOM	266	N	VAL	34	-19.854	19.894	52.336	1.00	24.83
ATOM	267	CA	VAL	34	-19.330	19.932	50.977	1.00	22.29
ATOM	268	CB	VAL	34	-19.862	18.759	50.127	1.00	20.95
ATOM	269	CG1	VAL	34	-19.369	18.874	48.673	1.00	21.76
ATOM	270	CG2	VAL	34	-19.402	17.455	50.719	1.00	17.15
ATOM	271	C	VAL	34	-19.637	21.267	50.297	1.00	23.14
ATOM	272	O	VAL	34	-18.738	21.903	49.749	1.00	22.64
ATOM	273	N	THR	35	-20.871	21.748	50.408	1.00	25.09
ATOM	274	CA	THR	35	-21.218	23.000	49.750	1.00	26.30
ATOM	275	CB	THR	35	-22.752	23.248	49.729	1.00	25.06
ATOM	276	OG1	THR	35	-23.234	23.418	51.061	1.00	36.47
ATOM	277	CG2	THR	35	-23.454	22.072	49.124	1.00	23.93
ATOM	278	C	THR	35	-20.504	24.207	50.335	1.00	25.65
ATOM	279	O	THR	35	-20.209	25.165	49.631	1.00	25.41
ATOM	280	N	ARG	36	-20.198	24.159	51.621	1.00	26.35
ATOM	281	CA	ARG	36	-19.545	25.296	52.237	1.00	27.73
ATOM	282	CB	ARG	36	-20.083	25.473	53.649	1.00	34.96
ATOM	283	CG	ARG	36	-19.562	26.715	54.326	1.00	47.48
ATOM	284	CD	ARG	36	-20.581	27.250	55.290	1.00	56.04

ATOM	285	NE	ARG	36	-21.775	27.729	54.600	1.00	63.48
ATOM	286	CZ	ARG	36	-22.490	28.780	54.996	1.00	67.12
ATOM	287	NH1	ARG	36	-23.564	29.153	54.303	1.00	67.75
ATOM	288	NH2	ARG	36	-22.127	29.465	56.082	1.00	68.27
ATOM	289	C	ARG	36	-18.014	25.292	52.233	1.00	23.26
ATOM	290	O	ARG	36	-17.386	26.346	52.208	1.00	21.26
ATOM	291	N	THR	37	-17.423	24.103	52.214	1.00	20.79
ATOM	292	CA	THR	37	-15.973	23.969	52.258	1.00	19.72
ATOM	293	CB	THR	37	-15.549	23.164	53.509	1.00	20.01
ATOM	294	OG1	THR	37	-16.014	21.812	53.384	1.00	17.59
ATOM	295	CG2	THR	37	-16.157	23.752	54.765	1.00	18.21
ATOM	296	C	THR	37	-15.363	23.272	51.047	1.00	20.77
ATOM	297	O	THR	37	-14.234	23.571	50.657	1.00	20.98
ATOM	298	N	GLY	38	-16.093	22.296	50.504	1.00	20.62
ATOM	299	CA	GLY	38	-15.623	21.523	49.364	1.00	18.36
ATOM	300	C	GLY	38	-14.824	20.328	49.848	1.00	18.06
ATOM	301	O	GLY	38	-14.245	19.588	49.051	1.00	17.70
ATOM	302	N	ILE	39	-14.838	20.106	51.162	1.00	18.51
ATOM	303	CA	ILE	39	-14.087	19.018	51.779	1.00	15.54
ATOM	304	CB	ILE	39	-13.463	19.468	53.125	1.00	17.03
ATOM	305	CG2	ILE	39.	-12.568	18.356	53.686	1.00	13.06
ATOM	306	CG1	ILE	39	-12.701	20.776	52.925	1.00	15.34
ATOM	307	CD1	ILE	39	-12.296	21.511	54.207	1.00	13.27
ATOM	308	C	ILE	39	-14.966	17.810	52.029	1.00	15.05
ATOM	309	O	ILE	39	-16.108	17.948	52.460	1.00	14.33
ATOM	310	N	ARG	40	-14.411	16.631	51.756	1.00	16.78
ATOM	311	CA	ARG	40	-15.099	15.355	51.934	1.00	16.91
ATOM	312	CB	ARG	40	-15.230	14.605	50.607	1.00	15.88
ATOM	313	CG	ARG	40	-15.951	15.404	49.540	1.00	17.01
ATOM	314	CD	ARG	40	-16.414	14.532	48.388	1.00	20.36
ATOM	315	NE	ARG	40	-17.304	15.286	47.507	1.00	22.80
ATOM	316	CZ	ARG	40	-18.627	15.147	47.461	1.00	22.71
ATOM	317	NH1	ARG	40	-19.340	15.889	46.625	1.00	24.06
ATOM	318	NH2	ARG	40	-19.244	14.277	48.241	1.00	22.33
ATOM	319	C	ARG	40	-14.391	14.477	52.940	1.00	15.21
ATOM	320	O	ARG	40	-15.052	13.775	53.697	1.00	17.27
ATOM	321	N	GLU	41	-13.061	14.525	52.956	1.00	16.01
ATOM	322	CA	GLU	41	-12.248	13.722	53.878	1.00	17.22
ATOM	323	CB	GLU	41	-11.775	12.424	53.213	1.00	19.30
ATOM	324	CG	GLU	41	-12.883	11.489	52.740	1.00	25.93
ATOM	325	CD	GLU	41	-12.377	10.088	52.407	1.00	28.29
ATOM	326	OE1	GLU	41	-11.177	9.931	52.108	1.00	29.23

ATOM	327	OE2	GLU	41	-13.176	9.131	52.471	1.00	30.00
ATOM	328	C	GLU	41	-10.998	14.482	54.312	1.00	17.74
ATOM	329	O	GLU	41	-10.562	15.404	53.617	1.00	16.88
ATOM	330	N	ARG	42	-10.489	14.165	55.506	1.00	17.92
ATOM	331	CA	ARG	42	-9.251	14.760	56.026	1.00	17.57
ATOM	332	CB	ARG	42	-9.482	15.891	57.034	1.00	16.77
ATOM	333	CG	ARG	42	-10.571	16.876	56.702	1.00	14.90
ATOM	334	CD	ARG	42	-11.818	16.509	57.494	1.00	12.63
ATOM	335	NE	ARG	42	-12.935	17.331	57.105	1.00	12.24
ATOM	336	CZ	ARG	42	-14.039	16.851	56.547	1.00	12.60
ATOM	337	NH1	ARG	42	-15.023	17.679	56.214	1.00	13.99
ATOM	338	NH2	ARG	42	-14.178	15.542	56.352	1.00	16.01
ATOM	339	C	ARG	42	-8.549	13.612	56.724	1.00	18.08
ATOM	340	O	ARG	42	-9.200	12.693	57.210	1.00	18.35
ATOM	341	N	HIS	43	-7.225	13.643	56.741	1.00	16.37
ATOM	342	CA	HIS	43	-6.442	12.586	57.361	1.00	17.45
ATOM	343	CB	HIS	43	-5.150	12.367	56.563	1.00	16.92
ATOM	344	CG	HIS	43	-5.388	11.758	55.216	1.00	18.52
ATOM	345	CD2	HIS	43	-5.285	10.481	54.783	1.00	18.29
ATOM	346	ND1	HIS	43	-5.856	12.487	54.144	1.00	20.05
ATOM	347	CE1	HIS	43	-6.029	11.685	53.111	1.00	19.09
ATOM	348	NE2	HIS	43	-5.691	10.461	53.469	1.00	19.82
ATOM	349	C	HIS	43	-6.168	12.916	58.822	1.00	16.57
ATOM	350	O	HIS	43	-5.986	14.074	59.162	1.00	17.03
ATOM	351	N	ILE	44	-6.137	11.908	59.679	1.00	15.00
ATOM	352	CA	ILE	44	-5.911	12.139	61.098	1.00	17.50
ATOM	353	CB	ILE	44	-7.172	11.720	61.930	1.00	18.81
ATOM	354	CG2	ILE	44	-7.030	12.158	63.387	1.00	13.98
ATOM	355	CG1	ILE	44	-8.441	12.312	61.301	1.00	14.58
ATOM	356	CD1	ILE	44	-8.489	13.837	61.300	1.00	14.51
ATOM	357	C	ILE	44	-4.689	11.370	61.600	1.00	17.59
ATOM	358	O	ILE	44	-4.670	10.137	61.565	1.00	18.24
ATOM	359	N	ALA	45	-3.672	12.098	62.057	1.00	17.36
ATOM	360	CA	ALA	45	-2.448	11.474	62.564	1.00	20.67
ATOM	361	CB	ALA	45	-1.454	12.537	63.018	1.00	17.68
ATOM	362	C	ALA	45	-2.741	10.508	63.700	1.00	21.58
ATOM	363	O	ALA	45	-3.541	10.821	64.589	1.00	23.50
ATOM	364	N	ALA	46	-2.139	9.318	63.634	1.00	20.68
ATOM	365	CA	ALA	46	-2.334	8.298	64.658	1.00	21.34
ATOM	366	CB	ALA	46	-1.786	6.947	64.174	1.00	17.84
ATOM	367	C	ALA	46	-1.623	8.776	65.939	1.00	21.60
ATOM	368	O	ALA	46	-0.763	9.654	65.883	1.00	20.64

ATOM	369	N	PRO	47	-1.975	8.204	67.102	1.00	24.19
ATOM	370	CD	PRO	47	-3.051	7.207	67.277	1.00	25.13
ATOM	371	CA	PRO	47	-1.388	8.567	68.401	1.00	23.58
ATOM	372	CB	PRO	47	-1.868	7.439	69.298	1.00	23.25
ATOM	373	CG	PRO	47	-3.260	7.217	68.772	1.00	28.72
ATOM	374	C	PRO	47	0.124	8.694	68.439	1.00	22.07
ATOM	375	O	PRO	47	0.670	9.574	69.095	1.00	19.03
ATOM	376	N	ASN	48	0.782	7.767	67.758	1.00	20.67
ATOM	377	CA	ASN	48	2.234	7.718	67.712	1.00	22.24
ATOM	378	CB	ASN	48	2.688	6.283	67.419	1.00	26.20
ATOM	379	CG	ASN	48	2.225	5.792	66.042	1.00	34.12
ATOM	380	OD1	ASN	48	3.028	5.355	65.221	1.00	38.05
ATOM	381	ND2	ASN	48	0.919	5.869	65.789	1.00	31.93
ATOM	382	C	ASN	48	2.802	8.633	66.648	1.00	20.87
ATOM	383	O	ASN	48	4.018	8.728	66.480	1.00	21.83
ATOM	384	N	GLU	49	1.933	9.275	65.887	1.00	17.82
ATOM	385	CA	GLU	49	2.433	10.136	64.829	1.00	18.14
ATOM	386	CB	GLU	49	1.574	10.036	63.584	1.00	16.08
ATOM	387	CG	GLU	49	1.608	8.690	62.962	1.00	18.73
ATOM	388	CD	GLU	49	0.948	8.683	61.582	1.00	19.56
ATOM	389	OE1	GLU	49	-0.301	8.812	61.498	1.00	17.02
ATOM	390	OE2	GLU	49	1.696	8.595	60.577	1.00	25.12
ATOM	391	C	GLU	49	2.545	11.568	65.254	1.00	17.72
ATOM	392	O	GLU	49	1.777	12.039	66.091	1.00	17.14
ATOM	393	N	THR	50	3.555	12.241	64.711	1.00	16.40
ATOM	394	CA	THR	50	3.776	13.641	65.014	1.00	16.47
ATOM	395	CB	THR	50	4.920	13.829	66.042	1.00	16.17
ATOM	396	OG1	THR	50	6.177	13.503	65.435	1.00	16.23
ATOM	397	CG2	THR	50	4.713	12.929	67.251	1.00	18.60
ATOM	398	C	THR	50	4.174	14.398	63.754	1.00	16.84
ATOM	399	O	THR	50	4.394	13.805	62.699	1.00	14.79
ATOM	400	N	VAL	51	4.281	15.709	63.900	1.00	15.59
ATOM	401	CA	VAL	51	4.727	16.598	62.853	1.00	16.45
ATOM	402	CB	VAL	51	4.842	18.042	63.437	1.00	13.57
ATOM	403	CG1	VAL	51	5.942	18.856	62.763	1.00	11.02
ATOM	404	CG2	VAL	51	3.508	18.730	63.344	1.00	11.28
ATOM	405	C	VAL	51	6.097	16.110	62.344	1.00	17.71
ATOM	406	O	VAL	51	6.362	16.130	61.140	1.00	17.79
ATOM	407	N	SER	52	6.957	15.664	63.255	1.00	17.17
ATOM	408	CA	SER	52	8.293	15.184	62.885	1.00	18.29
ATOM	409	CB	SER	52	9.172	15.051	64.125	1.00	16.66
ATOM	410	OG	SER	52	9.229	16.283	64.798	1.00	17.47

ATOM	411	C	SER	52	8.274	13.848	62.152	1.00	19.24
ATOM	412	O	SER	52	9.011	13.667	61.176	1.00	20.08
ATOM	413	N	THR	53	7.435	12.916	62.604	1.00	17.44
ATOM	414	CA	THR	53	7.380	11.615	61.945	1.00	17.84
ATOM	415	CB	THR	53	6.597	10.583	62.762	1.00	14.28
ATOM	416	OG1	THR	53	5.219	10.946	62.827	1.00	15.22
ATOM	417	CG2	THR	53	7.143	10.527	64.151	1.00	16.88
ATOM	418	C	THR	53	6.814	11.744	60.530	1.00	15.40
ATOM	419	O	THR	53	7.346	11.147	59.595	1.00	14.41
ATOM	420	N	MET	54	5.789	12.586	60.372	1.00	17.02
ATOM	421	CA	MET	54	5.169	12.815	59.065	1.00	16.37
ATOM	422	CB	MET	54	3.887	13.622	59.200	1.00	11.74
ATOM	423	CG	MET	54	2.771	12.916	59.925	1.00	11.94
ATOM	424	SD	MET	54	1.428	14.054	60.130	1.00	17.81
ATOM	425	CE	MET	54	0.420	13.251	59.668	1.00	12.41
ATOM	426	C	MET	54	6.144	13.578	58.167	1.00	18.01
ATOM	427	O	MET	54	6.310	13.240	56.996	1.00	18.27
ATOM	428	N	GLY	55	6.806	14.588	58.732	1.00	16.68
ATOM	429	CA	GLY	55	7.757	15.375	57.972	1.00	15.22
ATOM	430	C	GLY	55	8.923	14.519	57.526	1.00	17.77
ATOM	431	O	GLY	55	9.502	14.752	56.473	1.00	15.19
ATOM	432	N	PHE	56	9.291	13.542	58.349	1.00	16.74
ATOM	433	CA	PHE	56	10.375	12.641	58.022	1.00	15.35
ATOM	434	CB	PHE	56	10.761	11.806	59.228	1.00	14.76
ATOM	435	CG	PHE	56	11.589	10.633	58.880	1.00	15.33
ATOM	436	CD1	PHE	56	12.916	10.797	58.518	1.00	17.87
ATOM	437	CD2	PHE	56	11.033	9.364	58.871	1.00	20.13
ATOM	438	CE1	PHE	56	13.689	9.707	58.147	1.00	20.86
ATOM	439	CE2	PHE	56	11.782	8.256	58.502	1.00	20.44
ATOM	440	CZ	PHE	56	13.120	8.427	58.139	1.00	22.93
ATOM	441	C	PHE	56	9.984	11.744	56.847	1.00	15.88
ATOM	442	O	PHE	56	10.805	11.480	55.963	1.00	18.33
ATOM	443	N	GLU	57	8.732	11.299	56.810	1.00	16.47
ATOM	444	CA	GLU	57	8.262	10.459	55.706	1.00	16.44
ATOM	445	CB	GLU	57	6.866	9.898	55.982	1.00	19.04
ATOM	446	CG	GLU	57	6.422	8.859	54.933	1.00	28.78
ATOM	447	CD	GLU	57	7.470	7.757	54.704	1.00	32.57
ATOM	448	OE1	GLU	57	8.030	7.259	55.712	1.00	33.45
ATOM	449	OE2	GLU	57	7.743	7.408	53.522	1.00	31.54
ATOM	450	C	GLU	57	8.241	11.254	54.398	1.00	16.27
ATOM	451	O	GLU	57	8.723	10.788	53.362	1.00	15.43
ATOM	452	N	ALA	58	7.686	12.457	54.455	1.00	14.93

ATOM	453	CA	ALA	58	7.615	13.320	53.298	1.00	15.24
ATOM	454	CB	ALA	58	6.909	14.612	53.672	1.00	10.75
ATOM	455	C	ALA	58	9.029	13.595	52.787	1.00	16.77
ATOM	456	O	ALA	58	9.322	13.374	51.606	1.00	19.45
ATOM	457	N	ALA	59	9.918	14.025	53.680	1.00	14.99
ATOM	458	CA	ALA	59	11.305	14.334	53.322	1.00	14.90
ATOM	459	CB	ALA	59	12.096	14.742	54.547	1.00	15.79
ATOM	460	C	ALA	59	12.003	13.164	52.660	1.00	16.19
ATOM	461	O	ALA	59	12.855	13.341	51.794	1.00	14.80
ATOM	462	N	THR	60	11.697	11.972	53.154	1.00	18.39
ATOM	463	CA	THR	60	12.267	10.733	52.647	1.00	20.35
ATOM	464	CB	THR	60	11.794	9.540	53.528	1.00	23.27
ATOM	465	OG1	THR	60	12.678	9.413	54.638	1.00	25.99
ATOM	466	CG2	THR	60	11.786	8.248	52.772	1.00	26.80
ATOM	467	C	THR	60	11.900	10.547	51.165	1.00	15.27
ATOM	468	O	THR	60	12.774	10.276	50.339	1.00	11.73
ATOM	469	N	ARG	61	10.636	10.815	50.849	1.00	14.30
ATOM	470	CA	ARG	61	10.118	10.702	49.487	1.00	17.51
ATOM	471	CB	ARG	61	8.598	10.725	49.520	1.00	15.55
ATOM	472	CG	ARG	61	8.062	9.505	50.243	1.00	16.85
ATOM	473	CD	ARG	61	6.570	9.554	50.479	1.00	17.09
ATOM	474	NE	ARG	61	6.124	8.395	51.249	1.00	17.68
ATOM	475	CZ	ARG	61	4.847	8.105	51.493	1.00	18.02
ATOM	476	NH1	ARG	61	4.531	7.028	52.201	1.00	15.41
ATOM	477	NH2	ARG	61	3.884	8.878	51.013	1.00	20.94
ATOM	478	C	ARG	61	10.683	11.785	48.567	1.00	17.73
ATOM	479	O	ARG	61	11.087	11.496	47.445	1.00	19.39
ATOM	480	N	ALA	62	10.776	13.012	49.077	1.00	16.81
ATOM	481	CA	ALA	62	11.332	14.114	48.310	1.00	17.29
ATOM	482	CB	ALA	62	11.151	15.455	49.067	1.00	12.18
ATOM	483	C	ALA	62	12.812	13.834	48.002	1.00	18.32
ATOM	484	O	ALA	62	13.270	14.073	46.888	1.00	18.51
ATOM	485	N	ILE	63	13.565	13.342	48.983	1.00	18.65
ATOM	486	CA	ILE	63	14.983	12.991	48.771	1.00	22.26
ATOM	487	CB	ILE	63	15.662	12.508	50.094	1.00	21.92
ATOM	488	CG2	ILE	63	17.027	11.859	49.828	1.00	19.52
ATOM	489	CG1	ILE	63	15.804	13.675	51.059	1.00	18.94
ATOM	490	CD1	ILE	63	16.151	13.235	52.455	1.00	20.46
ATOM	491	C	ILE	63	15.108	11.913	47.684	1.00	23.84
ATOM	492	O	ILE	63	15.915	12.038	46.750	1.00	23.34
ATOM	493	N	GLU	64	14.239	10.911	47.779	1.00	24.30
ATOM	494	CA	GLU	64	14.196	9.812	46.834	1.00	24.87

ATOM	495	CB	GLU	64	13.055	8.866	47.220	1.00	29.64
ATOM	496	CG	GLU	64	12.285	8.229	46.062	1.00	41.80
ATOM	497	CD	GLU	64	10.823	7.933	46.425	1.00	48.72
ATOM	498	OE1	GLU	64	9.917	8.403	45.685	1.00	49.27
ATOM	499	OE2	GLU	64	10.574	7.204	47.424	1.00	45.42
ATOM	500	C	GLU	64	14.021	10.407	45.435	1.00	24.15
ATOM	501	O	GLU	64	14.820	10.147	44.550	1.00	23.04
ATOM	502	N	MET	65	13.039	11.287	45.263	1.00	23.13
ATOM	503	CA	MET	65	12.807	11.900	43.956	1.00	21.26
ATOM	504	CB	MET	65	11.541	12.746	43.959	1.00	19.65
ATOM	505	CG	MET	65	11.215	13.375	42.614	1.00	18.75
ATOM	506	SD	MET	65	9.595	14.169	42.565	1.00	23.17
ATOM	507	CE	MET	65	9.990	15.759	42.116	1.00	25.40
ATOM	508	C	MET	65	14.001	12.749	43.511	1.00	21.36
ATOM	509	O	MET	65	14.412	12.678	42.350	1.00	19.52
ATOM	510	N	ALA	66	14.613	13.476	44.447	1.00	19.58
ATOM	511	CA	ALA	66	15.765	14.319	44.123	1.00	18.30
ATOM	512	CB	ALA	66	16.155	15.186	45.324	1.00	13.68
ATOM	513	C	ALA	66	16.972	13.520	43.632	1.00	17.54
ATOM	514	O	ALA	66	17.755	14.010	42.828	1.00	17.14
ATOM	515	N	GLY	67	17.133	12.301	44.131	1.00	18.63
ATOM	516	CA	GLY	67	18.261	11.483	43.729	1.00	19.45
ATOM	517	C	GLY	67	19.569	11.909	44.360	1.00	21.87
ATOM	518	O	GLY	67	20.643	11.686	43.792	1.00	24.78
ATOM	519	N	ILE	68	19.491	12.569	45.513	1.00	21.12
ATOM	520	CA	ILE	68	20.704	13.001	46.183	1.00	19.45
ATOM	521	CB	ILE	68	20.672	14.483	46.588	1.00	16.42
ATOM	522	CG2	ILE	68	20.560	15.372	45.383	1.00	15.26
ATOM	523	CG1	ILE	68	19.536	14.764	47.577	1.00	18.26
ATOM	524	CD1	ILE	68	19.832	15.914	48.544	1.00	16.55
ATOM	525	C	ILE	68	20.877	12.154	47.428	1.00	22.16
ATOM	526	O	ILE	68	19.962	11.414	47.835	1.00	21.83
ATOM	527	N	GLU	69	22.064	12.231	48.011	1.00	23.82
ATOM	528	CA	GLU	69	22.368	11.498	49.230	1.00	25.64
ATOM	529	CB	GLU	69	23.875	11.276	49.330	1.00	29.20
ATOM	530	CG	GLU	69	24.354	10.099	48.504	1.00	36.25
ATOM	531	CD	GLU	69	23.728	8.797	48.957	1.00	43.23
ATOM	532	OE1	GLU	69	23.625	8.581	50.181	1.00	50.94
ATOM	533	OE2	GLU	69	23.309	7.996	48.092	1.00	48.77
ATOM	534	C	GLU	69	21.917	12.411	50.343	1.00	25.38
ATOM	535	O	GLU	69	22.198	13.616	50.303	1.00	25.54
ATOM	536	N	LYS	70	21.208	11.872	51.324	1.00	24.42

ATOM	537	CA	LYS	70	20.720	12.698	52.420	1.00	25.00
ATOM	538	CB	LYS	70	19.897	11.879	53.425	1.00	28.06
ATOM	539	CG	LYS	70	20.614	10.709	54.086	1.00	29.42
ATOM	540	CD	LYS	70	19.585	9.786	54.730	1.00	29.92
ATOM	541	CE	LYS	70	20.267	8.635	55.473	1.00	34.13
ATOM	542	NZ	LYS	70	21.345	9.166	56.367	1.00	39.62
ATOM	543	C	LYS	70	21.850	13.425	53.104	1.00	22.33
ATOM	544	O	LYS	70	21.695	14.565	53.492	1.00	21.61
ATOM	545	N	ASP	71	23.034	12.833	53.117	1.00	23.95
ATOM	546	CA	ASP	71	24.162	13.511	53.740	1.00	27.99
ATOM	547	CB	ASP	71	25.282	12.515	54.098	1.00	34.26
ATOM	548	CG	ASP	71	26.182	12.137	52.905	1.00	42.67
ATOM	549	OD1	ASP	71	27.375	11.819	53.143	1.00	44.56
ATOM	550	OD2	ASP	71	25.716	12.152	51.754	1.00	47.09
ATOM	551	C	ASP	71	24.670	14.723	52.929	1.00	26.71
ATOM	552	O	ASP	71	25.654	15.352	53.303	1.00	27.18
ATOM	553	N	GLN	72	23.971	15.061	51.842	1.00	25.25
ATOM	554	CA	GLN	72	24.326	16.205	50.993	1.00	24.57
ATOM	555	CB	GLN	72	24.064	15.882	49.511	1.00	26.67
ATOM	556	CG	GLN	72	25.112	14.974	48.853	1.00	31.57
ATOM	557	CD	GLN	72	24.852	14.674	47.337	1.00	34.08
ATOM	558	OE1	GLN	72	24.088	13.802	46.997	1.00	33.28
ATOM	559	NE2	GLN	72	25.524	15.386	46.461	1.00	33.56
ATOM	560	C	GLN	72	23.510	17.444	51.389	1.00	22.60
ATOM	561	O	GLN	72	23.810	18.566	50.950	1.00	22.73
ATOM	562	N	ILE	73	22.470	17.243	52.196	1.00	18.67
ATOM	563	CA	ILE	73	21.611	18.335	52.633	1.00	16.76
ATOM	564	CB	ILE	73	20.373	17.769	53.358	1.00	16.08
ATOM	565	CG2	ILE	73	19.580	18.880	54.060	1.00	12.08
ATOM	566	CG1	ILE	73	19.488	17.057	52.332	1.00	15.54
ATOM	567	CD1	ILE	73	18.466	16.093	52.940	1.00	15.22
ATOM	568	C	ILE	73	22.391	19.335	53.489	1.00	17.81
ATOM	569	O	ILE	73	23.089	18.943	54.415	1.00	19.41
ATOM	570	N	GLY	74	22.303	20.621	53.146	1.00	15.13
ATOM	571	CA	GLY	74	23.015	21.640	53.895	1.00	14.26
ATOM	572	C	GLY	74	22.145	22.536	54.762	1.00	14.53
ATOM	573	O	GLY	74	22.646	23.431	55.414	1.00	14.73
ATOM	574	N	LEU	75	20.843	22.271	54.813	1.00	15.84
ATOM	575	CA	LEU	75	19.914	23.093	55.595	1.00	14.63
ATOM	576	CB	LEU	75	19.743	24.475	54.936	1.00	18.86
ATOM	577	CG	LEU	75	18.688	25.488	55.445	1.00	21.57
ATOM	578	CD1	LEU	75	19.188	26.180	56.724	1.00	21.94

ATOM	579	CD2	LEU	75	18.391	26.551	54.350	1.00	18.22
ATOM	580	C	LEU	75	18.562	22.412	55.629	1.00	15.92
ATOM	581	O	LEU	75	18.142	21.818	54.624	1.00	16.84
ATOM	582	N	ILE	76	17.909	22.439	56.789	1.00	14.37
ATOM	583	CA	ILE	76	16.584	21.866	56.951	1.00	12.83
ATOM	584	CB	ILE	76	16.572	20.632	57.904	1.00	11.01
ATOM	585	CG2	ILE	76	15.150	20.077	58.020	1.00	9.35
ATOM	586	CG1	ILE	76	17.518	19.546	57.397	1.00	11.55
ATOM	587	CD1	ILE	76	17.615	18.374	58.309	1.00	10.18
ATOM	588	C	ILE	76	15.707	22.969	57.552	1.00	15.09
ATOM	589	O	ILE	76	16.077	23.593	58.561	1.00	15.81
ATOM	590	N	VAL	77	14.580	23.248	56.908	1.00	11.62
ATOM	591	CA	VAL	77	13.669	24.261	57.409	1.00	13.15
ATOM	592	CB	VAL	77	13.596	25.513	56.472	1.00	14.77
ATOM	593	CG1	VAL	77	12.722	26.588	57.098	1.00	14.36
ATOM	594	CG2	VAL	77	15.004	26.083	56.171	1.00	14.42
ATOM	595	C	VAL	77	12.295	23.625	57.501	1.00	12.63
ATOM	596	O	VAL	77	11.790	23.123	56.493	1.00	12.45
ATOM	597	N	VAL	78	11.726	23.576	58.709	1.00	12.34
ATOM	598	CA	VAL	78	10.407	22.994	58.908	1.00	11.72
ATOM	599	CB	VAL	78	10.376	21.871	60.025	1.00	9.96
ATOM	600	CG1	VAL	78	8.965	21.323	60.190	1.00	7.62
ATOM	601	CG2	VAL	78	11.260	20.738	59.640	1.00	7.46
ATOM	602	C	VAL	78	9.395	24.068	59.267	1.00	13.71
ATOM	603	O	VAL	78	9.578	24.817	60.232	1.00	14.80
ATOM	604	N	ALA	79	8.360	24.166	58.443	1.00	13.36
ATOM	605	CA	ALA	79	7.272	25.092	58.645	1.00	12.64
ATOM	606	CB	ALA	79	6.705	25.519	57.293	1.00	13.46
ATOM	607	C	ALA	79	6.244	24.298	59.421	1.00	12.19
ATOM	608	O	ALA	79	5.708	23.318	58.924	1.00	10.49
ATOM	609	N	THR	80	5.972	24.714	60.644	1.00	15.37
ATOM	610	CA	THR	80	5.015	24.024	61.484	1.00	13.12
ATOM	611	CB	THR	80	5.618	22.719	62.076	1.00	12.93
ATOM	612	OG1	THR	80	4.590	21.986	62.763	1.00	15.16
ATOM	613	CG2	THR	80	6.725	23.040	63.067	1.00	9.22
ATOM	614	C	THR	80	4.651	24.919	62.656	1.00	12.33
ATOM	615	O	THR	80	5.426	25.786	63.043	1.00	11.59
ATOM	616	N	THR	81	3.449	24.733	63.181	1.00	13.32
ATOM	617	CA	THR	81	2.996	25.462	64.352	1.00	14.40
ATOM	618	CB	THR	81	2.046	26.641	64.006	1.00	13.39
ATOM	619	OG1	THR	81	1.044	26.208	63.083	1.00	16.03
ATOM	620	CG2	THR	81	2.814	27.817	63.444	1.00	9.46

ATOM	621	C	THR	81	2.280	24.441	65.244	1.00	13.87
ATOM	622	O	THR	81	1.357	24.784	65.976	1.00	15.84
ATOM	623	N	SER	82	2.688	23.176	65.136	1.00	14.43
ATOM	624	CA	SER	82	2.089	22.114	65.938	1.00	11.84
ATOM	625	CB	SER	82	0.875	21.521	65.232	1.00	12.86
ATOM	626	OG	SER	82	1.206	21.032	63.948	1.00	11.24
ATOM	627	C	SER	82	3.081	21.019	66.307	1.00	11.72
ATOM	628	O	SER	82	2.712	19.851	66.424	1.00	12.32
ATOM	629	N	ALA	83	4.348	21.382	66.458	1.00	13.31
ATOM	630	CA	ALA	83	5.360	20.411	66.852	1.00	15.12
ATOM	631	CB	ALA	83	6.739	20.985	66.642	1.00	14.05
ATOM	632	C	ALA	83	5.142	19.981	68.330	1.00	16.97
ATOM	633	O	ALA	83	4.413	20.639	69.097	1.00	15.44
ATOM	634	N	THR	84	5.745	18.853	68.711	1.00	15.89
ATOM	635	CA	THR	84	5.605	18.308	70.058	1.00	15.47
ATOM	636	CB	THR	84	5.961	16.799	70.095	1.00	14.21
ATOM	637	OG1	THR	84	7.292	16.596	69.590	1.00	12.85
ATOM	638	CG2	THR	84	4.968	15.983	69.277	1.00	14.80
ATOM	639	C	THR	84	6.441	19.035	71.111	1.00	16.61
ATOM	640	O	THR	84	6.089	19.052	72.302	1.00	15.31
ATOM	641	N	HIS	85	7.552	19.613	70.676	1.00	16.17
ATOM	642	CA	HIS	85	8.443	20.335	71.564	1.00	15.93
ATOM	643	CB	HIS	85	9.726	19.547	71.756	1.00	13.67
ATOM	644	CG	HIS	85	9.521	18.212	72.387	1.00	15.44
ATOM	645	CD2	HIS	85	9.871	17.740	73.607	1.00	15.64
ATOM	646	ND1	HIS	85	8.855	17.185	71.762	1.00	17.34
ATOM	647	CE1	HIS	85	8.793	16.140	72.563	1.00	15.17
ATOM	648	NE2	HIS	85	9.404	16.455	73.690	1.00	15.21
ATOM	649	C	HIS	85	8.820	21.679	70.975	1.00	17.75
ATOM	650	O	HIS	85	8.989	21.787	69.746	1.00	18.95
ATOM	651	N	ALA	86	8.965	22.685	71.852	1.00	16.04
ATOM	652	CA	ALA	86	9.391	24.033	71.463	1.00	14.55
ATOM	653	CB	ALA	86	9.209	24.997	72.603	1.00	13.59
ATOM	654	C	ALA	86	10.874	23.847	71.116	1.00	14.89
ATOM	655	O	ALA	86	11.419	24.536	70.258	1.00	16.26
ATOM	656	N	PHE	87	11.506	22.912	71.827	1.00	15.06
ATOM	657	CA	PHE	87	12.867	22.444	71.586	1.00	15.41
ATOM	658	CB	PHE	87	13.998	23.440	71.934	1.00	13.73
ATOM	659	CG	PHE	87	14.099	23.836	73.386	1.00	13.90
ATOM	660	CD1	PHE	87	13.639	25.080	73.803	1.00	13.13
ATOM	661	CD2	PHE	87	14.769	23.034	74.303	1.00	14.20
ATOM	662	CE1	PHE	87	13.846	25.534	75.101	1.00	19.78

ATOM	663	CE2	PHE	87	14.986	23.469	75.615	1.00	14.72
ATOM	664	CZ	PHE	87	14.527	24.722	76.014	1.00	18.85
ATOM	665	C	PHE	87	13.034	21.080	72.253	1.00	16.28
ATOM	666	O	PHE	87	12.416	20.810	73.287	1.00	16.40
ATOM	667	N	PRO	88	13.642	20.110	71.547	1.00	17.53
ATOM	668	CD	PRO	88	13.693	18.738	72.065	1.00	16.11
ATOM	669	CA	PRO	88	14.229	20.187	70.195	1.00	18.08
ATOM	670	CB	PRO	88	14.807	18.781	70.012	1.00	18.73
ATOM	671	CG	PRO	88	13.850	17.925	70.814	1.00	15.36
ATOM	672	C	PRO	88	13.139	20.471	69.142	1.00	17.88
ATOM	673	O	PRO	88	11.993	20.033	69.280	1.00	20.75
ATOM	674	N	SER	89	13.470	21.279	68.141	1.00	18.44
ATOM	675	CA	SER	89	12.512	21.614	67.091	1.00	15.72
ATOM	676	CB	SER	89	13.067	22.778	66.268	1.00	15.01
ATOM	677	OG	SER	89	14.249	22.351	65.608	1.00	16.01
ATOM	678	C	SER	89	12.269	20.404	66.167	1.00	13.80
ATOM	679	O	SER	89	13.082	19.478	66.106	1.00	13.56
ATOM	680	N	ALA	90	11.152	20.431	65.446	1.00	13.97
ATOM	681	CA	ALA	90	10.806	19.376	64.504	1.00	13.70
ATOM	682	CB	ALA	90	9.516	19.734	63.755	1.00	13.44
ATOM	683	C	ALA	90	11.942	19.148	63.512	1.00	12.69
ATOM	684	O	ALA	90	12.262	18.017	63.180	1.00	13.38
ATOM	685	N	ALA	91	12.558	20.229	63.046	1.00	12.95
ATOM	686	CA	ALA	91	13.659	20.130	62.092	1.00	13.06
ATOM	687	CB	ALA	91	14.167	21.520	61.717	1.00	10.63
ATOM	688	C	ALA	91	14.778	19.295	62.694	1.00	16.08
ATOM	689	O	ALA	91	15.392	18.478	62.001	1.00	18.26
ATOM	690	N	CYS	92	15.038	19.500	63.984	1.00	15.32
ATOM	691	CA	CYS	92	16.083	18.748	64.669	1.00	14.63
ATOM	692	CB	CYS	92	16.418	19.369	66.021	1.00	12.09
ATOM	693	SG	CYS	92	17.471	20.795	65.872	1.00	16.93
ATOM	694	C	CYS	92	15.703	17.284	64.837	1.00	16.50
ATOM	695	O	CYS	92	16.544	16.401	64.667	1.00	18.97
ATOM	696	N	GLN	93	14.432	17.032	65.146	1.00	15.77
ATOM	697	CA	GLN	93	13.947	15.678	65.322	1.00	14.07
ATOM	698	CB	GLN	93	12.533	15.701	65.882	1.00	15.39
ATOM	699	CG	GLN	93	12.449	16.388	67.233	1.00	16.37
ATOM	700	CD	GLN	93	11.041	16.486	67.783	1.00	18.41
ATOM	701	OE1	GLN	93	10.095	16.847	67.089	1.00	15.03
ATOM	702	NE2	GLN	93	10.907	16.217	69.071	1.00	20.07
ATOM	703	C	GLN	93	13.992	14.956	63.987	1.00	15.91
ATOM	704	O	GLN	93	14.451	13.816	63.915	1.00	16.79

ATOM	705	N	ILE	94	13.581	15.648	62.923	1.00	14.33
ATOM	706	CA	ILE	94	13.600	15.083	61.571	1.00	13.33
ATOM	707	CB	ILE	94	12.851	15.999	60.551	1.00	12.71
ATOM	708	CG2	ILE	94	13.176	15.605	59.112	1.00	15.86
ATOM	709	CG1	ILE	94	11.344	15.869	60.780	1.00	11.74
ATOM	710	CD1	ILE	94	10.463	16.858	60.024	1.00	12.58
ATOM	711	C	ILE	94	15.054	14.807	61.170	1.00	15.04
ATOM	712	O	ILE	94	15.377	13.715	60.699	1.00	17.76
ATOM	713	N	GLN	95	15.950	15.743	61.460	1.00	15.19
ATOM	714	CA	GLN	95	17.361	15.558	61.143	1.00	17.56
ATOM	715	CB	GLN	95	18.188	16.753	61.627	1.00	16.84
ATOM	716	CG	GLN	95	19.668	16.649	61.286	1.00	15.85
ATOM	717	CD	GLN	95	20.510	17.682	61.992	1.00	18.03
ATOM	718	OE1	GLN	95	21.404	18.281	61.399	1.00	22.64
ATOM	719	NE2	GLN	95	20.221	17.912	63.253	1.00	13.59
ATOM	720	C	GLN	95	17.906	14.280	61.782	1.00	18.27
ATOM	721	O	GLN	95	18.662	13.543	61.151	1.00	20.97
ATOM	722	N	SER	96	17.537	14.027	63.034	1.00	18.90
ATOM	723	CA	SER	96	18.002	12.836	63.744	1.00	19.11
ATOM	724	CB	SER	96	17.548	12.857	65.209	1.00	21.27
ATOM	725	OG	SER	96	18.072	11.751	65.942	1.00	23.11
ATOM	726	C	SER	96	17.451	11.612	63.039	1.00	18.80
ATOM	727	O	SER	96	18.197	10.677	62.754	1.00	18.89
ATOM	728	N	MET	97	16.157	11.650	62.703	1.00	17.73
ATOM	729	CA	MET	97	15.509	10.555	61.999	1.00	17.02
ATOM	730	CB	MET	97	14.029	10.862	61.782	1.00	15.57
ATOM	731	CG	MET	97	13.247	11.043	63.079	1.00	15.84
ATOM	732	SD	MET	97	11.518	11.518	62.913	1.00	18.18
ATOM	733	CE	MET	97	10.770	9.958	62.657	1.00	26.61
ATOM	734	C	MET	97	16.225	10.270	60.667	1.00	20.63
ATOM	735	O	MET	97	16.458	9.119	60.313	1.00	22.14
ATOM	736	N	LEU	98	16.609	11.317	59.949	1.00	21.60
ATOM	737	CA	LEU	98	17.309	11.161	58.674	1.00	20.89
ATOM	738	CB	LEU	98	17.409	12.499	57.924	1.00	16.76
ATOM	739	CG	LEU	98	16.113	13.037	57.317	1.00	19.86
ATOM	740	CD1	LEU	98	16.337	14.417	56.722	1.00	18.39
ATOM	741	CD2	LEU	98	15.596	12.069	56.273	1.00	21.76
ATOM	742	C	LEU	98	18.708	10.624	58.908	1.00	23.19
ATOM	743	O	LEU	98	19.339	10.150	57.981	1.00	24.23
ATOM	744	N	GLY	99	19.210	10.731	60.131	1.00	23.12
ATOM	745	CA	GLY	99	20.539	10.223	60.399	1.00	23.89
ATOM	746	C	GLY	99	21.683	11.084	59.901	1.00	25.82

ATOM	747	O	GLY	99	22.750	10.575	59.532	1.00	27.41
ATOM	748	N	ILE	100	21.469	12.392	59.879	1.00	23.89
ATOM	749	CA	ILE	100	22.516	13.298	59.452	1.00	22.27
ATOM	750	CB	ILE	100	22.202	13.975	58.076	1.00	24.69
ATOM	751	CG2	ILE	100	22.056	12.911	56.973	1.00	21.60
ATOM	752	CG1	ILE	100	20.937	14.832	58.151	1.00	24.24
ATOM	753	CD1	ILE	100	20.575	15.474	56.839	1.00	20.06
ATOM	754	C	ILE	100	22.725	14.332	60.562	1.00	20.97
ATOM	755	O	ILE	100	21.844	14.547	61.386	1.00	19.82
ATOM	756	N	LYS	101	23.924	14.879	60.658	1.00	21.70
ATOM	757	CA	LYS	101	24.207	15.870	61.677	1.00	24.06
ATOM	758	CB	LYS	101	24.880	15.255	62.896	1.00	27.80
ATOM	759	CG	LYS	101	25.956	14.264	62.609	1.00	33.02
ATOM	760	CD	LYS	101	25.396	12.889	62.850	1.00	42.63
ATOM	761	CE	LYS	101	26.304	12.092	63.754	1.00	48.06
ATOM	762	NZ	LYS	101	25.522	11.159	64.611	1.00	54.55
ATOM	763	C	LYS	101	25.106	16.930	61.125	1.00	23.84
ATOM	764	O	LYS	101	25.849	16.685	60.174	1.00	25.04
ATOM	765	N	GLY	102	25.047	18.101	61.739	1.00	22.02
ATOM	766	CA	GLY	102	25.877	19.205	61.320	1.00	20.31
ATOM	767	C	GLY	102	25.137	20.348	60.673	1.00	20.38
ATOM	768	O	GLY	102	25.290	21.499	61.092	1.00	22.89
ATOM	769	N	CYS	103	24.315	20.044	59.676	1.00	18.33
ATOM	770	CA	CYS	103	23.608	21.098	58.966	1.00	17.28
ATOM	771	CB	CYS	103	22.895	20.566	57.717	1.00	11.98
ATOM	772	SG	CYS	103	21.327	19.792	57.976	1.00	14.58
ATOM	773	C	CYS	103	22.631	21.864	59.824	1.00	16.60
ATOM	774	O	CYS	103	22.137	21.343	60.831	1.00	15.36
ATOM	775	N	PRO	104	22.427	23.153	59.510	1.00	15.70
ATOM	776	CD	PRO	104	23.226	24.015	58.616	1.00	13.65
ATOM	777	CA	PRO	104	21.484	23.950	60.290	1.00	16.12
ATOM	778	CB	PRO	104	21.639	25.363	59.706	1.00	14.17
ATOM	779	CG	PRO	104	22.312	25.174	58.389	1.00	9.21
ATOM	780	C	PRO	104	20.064	23.399	60.147	1.00	15.70
ATOM	781	O	PRO	104	19.656	22.966	59.068	1.00	17.37
ATOM	782	N	ALA	105	19.329	23.396	61.251	1.00	15.83
ATOM	783	CA	ALA	105	17.973	22.883	61.272	1.00	16.61
ATOM	784	CB	ALA	105	17.992	21.436	61.731	1.00	14.43
ATOM	785	C	ALA	105	17.163	23.749	62.237	1.00	17.41
ATOM	786	O	ALA	105	17.608	24.007	63.352	1.00	16.41
ATOM	787	N	PHE	106	16.022	24.262	61.770	1.00	17.13
ATOM	788	CA	PHE	106	15.144	25.123	62.578	1.00	15.63

ATOM	789	CB	PHE	106	15.701	26.554	62.713	1.00	11.21
ATOM	790	CG	PHE	106	15.782	27.318	61.416	1.00	10.01
ATOM	791	CD1	PHE	106	16.856	27.134	60.546	1.00	15.32
ATOM	792	CD2	PHE	106	14.785	28.229	61.064	1.00	13.04
ATOM	793	CE1	PHE	106	16.944	27.843	59.337	1.00	15.09
ATOM	794	CE2	PHE	106	14.854	28.946	59.861	1.00	11.99
ATOM	795	CZ	PHE	106	15.935	28.753	58.995	1.00	14.77
ATOM	796	C	PHE	106	13.724	25.168	62.056	1.00	16.06
ATOM	797	O	PHE	106	13.449	24.784	60.919	1.00	15.24
ATOM	798	N	ASP	107	12.804	25.597	62.909	1.00	15.52
ATOM	799	CA	ASP	107	11.399	25.697	62.516	1.00	15.74
ATOM	800	CB	ASP	107	10.473	25.127	63.596	1.00	14.96
ATOM	801	CG	ASP	107	10.617	23.634	63.760	1.00	14.21
ATOM	802	OD1	ASP	107	11.469	23.010	63.087	1.00	16.72
ATOM	803	OD2	ASP	107	9.866	23.070	64.565	1.00	19.91
ATOM	804	C	ASP	107	11.009	27.134	62.241	1.00	14.14
ATOM	805	O	ASP	107	11.586	28.069	62.809	1.00	14.84
ATOM	806	N	VAL	108	9.984	27.298	61.421	1.00	12.14
ATOM	807	CA	VAL	108	9.502	28.614	61.059	1.00	12.05
ATOM	808	CB	VAL	108	9.822	28.892	59.562	1.00	13.83
ATOM	809	CG1	VAL	108	9.050	30.093	59.063	1.00	19.95
ATOM	810	CG2	VAL	108	11.302	29.124	59.390	1.00	11.71
ATOM	811	C	VAL	108	8.005	28.636	61.330	1.00	11.74
ATOM	812	O	VAL	108	7.280	27.736	60.913	1.00	12.52
ATOM	813	N	ALA	109	7.553	29.654	62.053	1.00	12.73
ATOM	814	CA	ALA	109	6.151	29.790	62.408	1.00	10.16
ATOM	815	CB	ALA	109	6.002	30.079	63.888	1.00	8.37
ATOM	816	C	ALA	109	5.476	30.874	61.623	1.00	11.11
ATOM	817	O	ALA	109	5.757	32.048	61.823	1.00	12.74
ATOM	818	N	ALA	110	4.557	30.470	60.759	1.00	12.36
ATOM	819	CA	ALA	110	3.772	31.388	59.937	1.00	13.80
ATOM	820	CB	ALA	110	4.511	31.757	58.652	1.00	10.71
ATOM	821	C	ALA	110	2.444	30.709	59.612	1.00	14.48
ATOM	822	O	ALA	110	1.923	30.831	58.497	1.00	15.82
ATOM	823	N	ALA	111	1.912	29.971	60.585	1.00	12.78
ATOM	824	CA	ALA	111	0.634	29.272	60.449	1.00	12.28
ATOM	825	CB	ALA	111	−0.504	30.238	60.719	1.00	7.63
ATOM	826	C	ALA	111	0.479	28.577	59.079	1.00	12.85
ATOM	827	O	ALA	111	1.424	27.929	58.605	1.00	12.63
ATOM	828	N	CYS	112	−0.698	28.695	58.467	1.00	12.58
ATOM	829	CA	CYS	112	−0.984	28.096	57.174	1.00	11.86
ATOM	830	CB	CYS	112	−2.457	28.264	56.808	1.00	10.86

ATOM	831	SG	CYS	112	-3.580	27.460	57.935	1.00	22.06
ATOM	832	C	CYS	112	-0.126	28.620	56.037	1.00	10.86
ATOM	833	O	CYS	112	-0.003	27.939	55.025	1.00	13.89
ATOM	834	N	ALA	113	0.441	29.815	56.168	1.00	10.35
ATOM	835	CA	ALA	113	1.303	30.367	55.112	1.00	10.39
ATOM	836	CB	ALA	113	1.207	31.870	55.069	1.00	5.27
ATOM	837	C	ALA	113	2.749	29.950	55.393	1.00	13.53
ATOM	838	O	ALA	113	3.683	30.446	54.768	1.00	15.81
ATOM	839	N	GLY	114	2.907	28.982	56.288	1.00	15.19
ATOM	840	CA	GLY	114	4.213	28.513	56.704	1.00	12.88
ATOM	841	C	GLY	114	5.131	27.968	55.639	1.00	14.87
ATOM	842	O	GLY	114	6.321	28.270	55.683	1.00	12.43
ATOM	843	N	PHE	115	4.621	27.151	54.710	1.00	13.78
ATOM	844	CA	PHE	115	5.495	26.610	53.662	1.00	14.23
ATOM	845	CB	PHE	115	4.808	25.527	52.820	1.00	10.84
ATOM	846	CG	PHE	115	5.735	24.854	51.824	1.00	14.49
ATOM	847	CD1	PHE	115	6.641	23.875	52.237	1.00	11.97
ATOM	848	CD2	PHE	115	5.718	25.216	50.464	1.00	16.35
ATOM	849	CE1	PHE	115	7.508	23.272	51.331	1.00	13.54
ATOM	850	CE2	PHE	115	6.582	24.618	49.555	1.00	13.73
ATOM	851	CZ	PHE	115	7.479	23.645	49.992	1.00	11.51
ATOM	852	C	PHE	115	6.085	27.702	52.763	1.00	11.95
ATOM	853	O	PHE	115	7.296	27.682	52.466	1.00	12.13
ATOM	854	N	THR	116	5.273	28.683	52.374	1.00	12.98
ATOM	855	CA	THR	116	5.779	29.769	51.524	1.00	13.62
ATOM	856	CB	THR	116	4.627	30.694	51.046	1.00	13.26
ATOM	857	OG1	THR	116	3.951	31.272	52.172	1.00	12.43
ATOM	858	CG2	THR	116	3.601	29.888	50.222	1.00	7.87
ATOM	859	C	THR	116	6.903	30.538	52.220	1.00	13.73
ATOM	860	O	THR	116	7.893	30.911	51.600	1.00	14.80
ATOM	861	N	TYR	117	6.780	30.676	53.540	1.00	14.24
ATOM	862	CA	TYR	117	7.786	31.355	54.341	1.00	11.98
ATOM	863	CB	TYR	117	7.274	31.553	55.786	1.00	13.03
ATOM	864	CG	TYR	117	6.606	32.898	56.003	1.00	13.11
ATOM	865	CD1	TYR	117	5.329	33.167	55.503	1.00	12.92
ATOM	866	CE1	TYR	117	4.753	34.450	55.639	1.00	14.31
ATOM	867	CD2	TYR	117	7.283	33.930	56.650	1.00	12.75
ATOM	868	CE2	TYR	117	6.725	35.193	56.790	1.00	9.36
ATOM	869	CZ	TYR	117	5.468	35.445	56.288	1.00	14.02
ATOM	870	OH	TYR	117	4.943	36.707	56.429	1.00	14.74
ATOM	871	C	TYR	117	9.079	30.543	54.338	1.00	10.90
ATOM	872	O	TYR	117	10.140	31.056	53.983	1.00	13.36

ATOM	873	N	ALA	118	8.978	29.264	54.683	1.00	10.86
ATOM	874	CA	ALA	118	10.140	28.377	54.744	1.00	11.40
ATOM	875	CB	ALA	118	9.717	27.017	55.272	1.00	14.36
ATOM	876	C	ALA	118	10.813	28.227	53.381	1.00	13.02
ATOM	877	O	ALA	118	12.043	28.203	53.289	1.00	13.09
ATOM	878	N	LEU	119	10.008	28.100	52.327	1.00	12.95
ATOM	879	CA	LEU	119	10.536	27.991	50.973	1.00	13.44
ATOM	880	CB	LEU	119	9.390	27.856	49.971	1.00	12.23
ATOM	881	CG	LEU	119	9.808	27.588	48.511	1.00	12.95
ATOM	882	CD1	LEU	119	10.593	26.281	48.405	1.00	8.62
ATOM	883	CD2	LEU	119	8.553	27.558	47.620	1.00	10.29
ATOM	884	C	LEU	119	11.341	29.264	50.672	1.00	12.90
ATOM	885	O	LEU	119	12.489	29.217	50.191	1.00	14.15
ATOM	886	N	SER	120	10.728	30.400	50.962	1.00	11.13
ATOM	887	CA	SER	120	11.375	31.683	50.764	1.00	12.19
ATOM	888	CB	SER	120	10.452	32.783	51.264	1.00	9.55
ATOM	889	OG	SER	120	11.108	34.028	51.163	1.00	14.24
ATOM	890	C	SER	120	12.737	31.755	51.489	1.00	13.68
ATOM	891	O	SER	120	13.751	32.109	50.874	1.00	16.00
ATOM	892	N	VAL	121	12.758	31.407	52.780	1.00	13.74
ATOM	893	CA	VAL	121	13.992	31.435	53.571	1.00	12.55
ATOM	894	CB	VAL	121	13.755	31.020	55.082	1.00	11.33
ATOM	895	CG1	VAL	121	15.090	31.021	55.839	1.00	7.56
ATOM	896	CG2	VAL	121	12.771	31.958	55.763	1.00	7.07
ATOM	897	C	VAL	121	15.086	30.555	52.959	1.00	12.81
ATOM	898	O	VAL	121	16.217	30.995	52.798	1.00	13.39
ATOM	899	N	ALA	122	14.750	29.306	52.634	1.00	13.65
ATOM	900	CA	ALA	122	15.718	28.380	52.052	1.00	13.52
ATOM	901	CB	ALA	122	15.119	26.987	51.942	1.00	8.36
ATOM	902	C	ALA	122	16.180	28.885	50.671	1.00	16.32
ATOM	903	O	ALA	122	17.363	28.766	50.323	1.00	18.48
ATOM	904	N	ASP	123	15.268	29.483	49.904	1.00	15.33
ATOM	905	CA	ASP	123	15.631	30.014	48.601	1.00	15.82
ATOM	906	CB	ASP	123	14.417	30.653	47.926	1.00	16.76
ATOM	907	CG	ASP	123	14.743	31.223	46.560	1.00	16.75
ATOM	908	OD1	ASP	123	14.204	32.294	46.228	1.00	17.90
ATOM	909	OD2	ASP	123	15.549	30.616	45.823	1.00	16.78
ATOM	910	C	ASP	123	16.759	31.038	48.759	1.00	15.98
ATOM	911	O	ASP	123	17.661	31.098	47.926	1.00	16.14
ATOM	912	N	GLN	124	16.735	31.794	49.857	1.00	16.65
ATOM	913	CA	GLN	124	17.761	32.802	50.119	1.00	18.73
ATOM	914	CB	GLN	124	17.438	33.634	51.356	1.00	20.30

ATOM	915	CG	GLN	124	16.133	34.370	51.296	1.00	20.11
ATOM	916	CD	GLN	124	15.857	35.026	49.944	1.00	26.83
ATOM	917	OE1	GLN	124	14.780	34.832	49.354	1.00	27.78
ATOM	918	NE2	GLN	124	16.806	35.822	49.459	1.00	23.67
ATOM	919	C	GLN	124	19.117	32.160	50.324	1.00	18.11
ATOM	920	O	GLN	124	20.122	32.638	49.802	1.00	20.14
ATOM	921	N	TYR	125	19.159	31.066	51.069	1.00	17.03
ATOM	922	CA	TYR	125	20.446	30.420	51.289	1.00	18.66
ATOM	923	CB	TYR	125	20.358	29.449	52.461	1.00	18.71
ATOM	924	CG	TYR	125	20.218	30.135	53.816	1.00	18.01
ATOM	925	CD1	TYR	125	21.354	30.470	54.568	1.00	16.81
ATOM	926	CE1	TYR	125	21.235	31.022	55.832	1.00	17.49
ATOM	927	CD2	TYR	125	18.961	30.385	54.375	1.00	13.84
ATOM	928	CE2	TYR	125	18.836	30.939	55.659	1.00	15.51
ATOM	929	CZ	TYR	125	19.980	31.247	56.375	1.00	16.78
ATOM	930	OH	TYR	125	19.907	31.740	57.663	1.00	18.42
ATOM	931	C	TYR	125	21.014	29.718	50.048	1.00	18.65
ATOM	932	O	TYR	125	22.232	29.667	49.871	1.00	16.20
ATOM	933	N	VAL	126	20.136	29.154	49.216	1.00	18.76
ATOM	934	CA	VAL	126	20.568	28.465	48.000	1.00	21.58
ATOM	935	CB	VAL	126	19.474	27.518	47.452	1.00	23.60
ATOM	936	CG1	VAL	126	19.994	26.772	46.237	1.00	21.73
ATOM	937	CG2	VAL	126	19.040	26.517	48.522	1.00	19.89
ATOM	938	C	VAL	126	20.981	29.465	46.917	1.00	22.41
ATOM	939	O	VAL	126	21.993	29.275	46.244	1.00	24.98
ATOM	940	N	LYS	127	20.199	30.534	46.777	1.00	22.79
ATOM	941	CA	LYS	127	20.445	31.597	45.813	1.00	21.95
ATOM	942	CB	LYS	127	19.485	32.747	46.045	1.00	20.12
ATOM	943	CG	LYS	127	18.205	32.712	45.279	1.00	22.39
ATOM	944	CD	LYS	127	17.450	33.987	45.607	1.00	24.81
ATOM	945	CE	LYS	127	16.464	34.354	44.537	1.00	27.80
ATOM	946	NZ	LYS	127	15.805	35.656	44.809	1.00	29.99
ATOM	947	C	LYS	127	21.810	32.180	46.013	1.00	22.75
ATOM	948	O	LYS	127	22.543	32.396	45.046	1.00	25.29
ATOM	949	N	SER	128	22.112	32.499	47.270	1.00	23.40
ATOM	950	CA	SER	128	23.382	33.123	47.667	1.00	23.54
ATOM	951	CB	SER	128	23.304	33.604	49.115	1.00	24.44
ATOM	952	OG	SER	128	23.294	32.509	50.026	1.00	30.92
ATOM	953	C	SER	128	24.616	32.256	47.523	1.00	20.90
ATOM	954	O	SER	128	25.724	32.743	47.703	1.00	21.77
ATOM	955	N	GLY	129	24.418	30.973	47.253	1.00	20.70
ATOM	956	CA	GLY	129	25.527	30.060	47.098	1.00	19.87

ATOM	957	C	GLY	129	25.991	29.450	48.410	1.00 21.46
ATOM	958	O	GLY	129	26.915	28.632	48.414	1.00 22.63
ATOM	959	N	ALA	130	25.318	29.781	49.512	1.00 20.71
ATOM	960	CA	ALA	130	25.693	29.263	50.823	1.00 21.71
ATOM	961	CB	ALA	130	25.042	30.110	51.916	1.00 21.83
ATOM	962	C	ALA	130	25.330	27.790	51.003	1.00 20.93
ATOM	963	O	ALA	130	26.097	27.017	51.566	1.00 21.45
ATOM	964	N	VAL	131	24.155	27.409	50.529	1.00 21.15
ATOM	965	CA	VAL	131	23.697	26.031	50.655	1.00 21.44
ATOM	966	CB	VAL	131	22.404	25.944	51.519	1.00 20.52
ATOM	967	CG1	VAL	131	21.893	24.526	51.543	1.00 19.00
ATOM	968	CG2	VAL	131	22.677	26.413	52.926	1.00 16.58
ATOM	969	C	VAL	131	23.417	25.415	49.277	1.00 21.95
ATOM	970	O	VAL	131	22.655	25.961	48.482	1.00 23.80
ATOM	971	N	LYS	132	23.983	24.243	49.019	1.00 20.27
ATOM	972	CA	LYS	132	23.803	23.565	47.738	1.00 21.06
ATOM	973	CB	LYS	132	24.933	22.546	47.549	1.00 21.51
ATOM	974	CG	LYS	132	24.827	21.667	46.325	1.00 29.57
ATOM	975	CD	LYS	132	24.947	22.471	45.050	1.00 37.22
ATOM	976	CE	LYS	132	25.060	21.563	43.825	1.00 41.92
ATOM	977	NZ	LYS	132	26.174	20.571	43.967	1.00 39.98
ATOM	978	C	LYS	132	22.432	22.889	47.620	1.00 20.36
ATOM	979	O	LYS	132	21.742	23.055	46.617	1.00 19.85
ATOM	980	N	TYR	133	22.091	22.086	48.628	1.00 19.35
ATOM	981	CA	TYR	133	20.837	21.345	48.718	1.00 17.47
ATOM	982	CB	TYR	133	21.100	19.844	48.721	1.00 17.54
ATOM	983	CG	TYR	133	21.703	19.320	47.452	1.00 22.81
ATOM	984	CD1	TYR	133	22.959	18.713	47.454	1.00 23.77
ATOM	985	CE1	TYR	133	23.512	18.221	46.290	1.00 24.85
ATOM	986	CD2	TYR	133	21.019	19.429	46.241	1.00 21.05
ATOM	987	CE2	TYR	133	21.566	18.940	45.069	1.00 23.25
ATOM	988	CZ	TYR	133	22.812	18.340	45.094	1.00 25.10
ATOM	989	OH	TYR	133	23.347	17.845	43.919	1.00 25.96
ATOM	990	C	TYR	133	20.155	21.688	50.041	1.00 20.53
ATOM	991	O	TYR	133	20.798	21.682	51.111	1.00 18.76
ATOM	992	N	ALA	134	18.851	21.929	49.987	1.00 17.88
ATOM	993	CA	ALA	134	18.109	22.268	51.183	1.00 17.55
ATOM	994	CB	ALA	134	17.808	23.751	51.211	1.00 17.56
ATOM	995	C	ALA	134	16.829	21.482	51.193	1.00 16.85
ATOM	996	O	ALA	134	16.276	21.199	50.150	1.00 18.04
ATOM	997	N	LEU	135	16.403	21.068	52.378	1.00 16.05
ATOM	998	CA	LEU	135	15.168	20.341	52.545	1.00 14.90

ATOM	999	CB	LEU	135	15.382	19.110	53.434	1.00	14.56
ATOM	1000	CG	LEU	135	14.109	18.376	53.890	1.00	12.93
ATOM	1001	CD1	LEU	135	13.431	17.693	52.719	1.00	11.99
ATOM	1002	CD2	LEU	135	14.492	17.337	54.916	1.00	15.32
ATOM	1003	C	LEU	135	14.215	21.300	53.238	1.00	14.83
ATOM	1004	O	LEU	135	14.577	21.912	54.249	1.00	14.84
ATOM	1005	N	VAL	136	13.028	21.461	52.673	1.00	12.73
ATOM	1006	CA	VAL	136	11.996	22.313	53.248	1.00	14.21
ATOM	1007	CB	VAL	136	11.616	23.514	52.324	1.00	13.40
ATOM	1008	CG1	VAL	136	10.451	24.321	52.921	1.00	11.44
ATOM	1009	CG2	VAL	136	12.811	24.425	52.165	1.00	13.08
ATOM	1010	C	VAL	136	10.779	21.437	53.459	1.00	14.11
ATOM	1011	O	VAL	136	10.306	20.770	52.536	1.00	14.31
ATOM	1012	N	VAL	137	10.290	21.419	54.687	1.00	13.61
ATOM	1013	CA	VAL	137	9.133	20.621	55.042	1.00	11.63
ATOM	1014	CB	VAL	137	9.514	19.585	56.140	1.00	11.26
ATOM	1015	CG1	VAL	137	8.296	18.819	56.618	1.00	10.09
ATOM	1016	CG2	VAL	137	10.571	18.631	55.598	1.00	9.65
ATOM	1017	C	VAL	137	8.011	21.498	55.568	1.00	11.40
ATOM	1018	O	VAL	137	8.245	22.550	56.157	1.00	13.58
ATOM	1019	N	GLY	138	6.787	21.104	55.263	1.00	13.71
ATOM	1020	CA	GLY	138	5.619	21.797	55.775	1.00	12.17
ATOM	1021	C	GLY	138	4.876	20.647	56.447	1.00	13.39
ATOM	1022	O	GLY	138	4.424	19.728	55.750	1.00	14.66
ATOM	1023	N	SER	139	4.790	20.644	57.778	1.00	10.96
ATOM	1024	CA	SER	139	4.128	19.553	58.486	1.00	10.80
ATOM	1025	CB	SER	139	5.172	18.585	59.020	1.00	9.49
ATOM	1026	OG	SER	139	4.571	17.401	59.522	1.00	12.58
ATOM	1027	C	SER	139	3.272	20.070	59.622	1.00	11.08
ATOM	1028	O	SER	139	3.731	20.898	60.409	1.00	12.81
ATOM	1029	N	ASP	140	2.021	19.621	59.687	1.00	12.13
ATOM	1030	CA	ASP	140	1.116	20.067	60.734	1.00	15.32
ATOM	1031	CB	ASP	140	0.414	21.377	60.332	1.00	13.84
ATOM	1032	CG	ASP	140	1.208	22.619	60.709	1.00	14.21
ATOM	1033	OD1	ASP	140	1.711	22.687	61.845	1.00	15.34
ATOM	1034	OD2	ASP	140	1.317	23.545	59.881	1.00	13.64
ATOM	1035	C	ASP	140	0.063	19.038	61.115	1.00	17.61
ATOM	1036	O	ASP	140	-0.331	18.204	60.299	1.00	16.49
ATOM	1037	N	VAL	141	-0.385	19.120	62.371	1.00	18.08
ATOM	1038	CA	VAL	141	-1.430	18.245	62.892	1.00	19.53
ATOM	1039	CB	VAL	141	-0.912	17.246	63.981	1.00	18.64
ATOM	1040	CG1	VAL	141	-0.009	16.194	63.359	1.00	14.22

ATOM	1041	CG2	VAL	141	-0.198	17.996	65.104	1.00	16.49
ATOM	1042	C	VAL	141	-2.540	19.110	63.483	1.00	18.98
ATOM	1043	O	VAL	141	-2.993	18.872	64.592	1.00	17.49
ATOM	1044	N	LEU	142	-3.033	20.066	62.705	1.00	16.58
ATOM	1045	CA	LEU	142	-4.063	20.954	63.207	1.00	17.95
ATOM	1046	CB	LEU	142	-4.281	22.159	62.287	1.00	15.72
ATOM	1047	CG	LEU	142	-3.100	23.125	62.126	1.00	18.13
ATOM	1048	CD1	LEU	142	-3.628	24.499	61.738	1.00	14.84
ATOM	1049	CD2	LEU	142	-2.246	23.204	63.415	1.00	12.26
ATOM	1050	C	LEU	142	-5.396	20.321	63.598	1.00	17.45
ATOM	1051	O	LEU	142	-6.111	20.883	64.417	1.00	17.68
ATOM	1052	N	ALA	143	-5.744	19.164	63.039	1.00	17.57
ATOM	1053	CA	ALA	143	-7.006	18.517	63.428	1.00	18.20
ATOM	1054	CB	ALA	143	-7.282	17.291	62.550	1.00	16.57
ATOM	1055	C	ALA	143	-6.928	18.108	64.912	1.00	17.46
ATOM	1056	O	ALA	143	-7.922	18.149	65.634	1.00	16.67
ATOM	1057	N	ARG	144	-5.718	17.757	65.336	1.00	16.25
ATOM	1058	CA	ARG	144	-5.408	17.344	66.696	1.00	15.42
ATOM	1059	CB	ARG	144	-3.985	16.786	66.686	1.00	16.36
ATOM	1060	CG	ARG	144	-3.423	16.304	67.996	1.00	19.87
ATOM	1061	CD	ARG	144	-2.043	15.674	67.776	1.00	19.85
ATOM	1062	NE	ARG	144	-2.125	14.298	67.274	1.00	15.50
ATOM	1063	CZ	ARG	144	-1.077	13.525	67.031	1.00	9.93
ATOM	1064	NH1	ARG	144	-1.261	12.297	66.590	1.00	14.81
ATOM	1065	NH2	ARG	144	0.152	13.968	67.226	1.00	14.32
ATOM	1066	C	ARG	144	-5.523	18.536	67.669	1.00	18.40
ATOM	1067	O	ARG	144	-5.722	18.352	68.868	1.00	20.28
ATOM	1068	N	THR	145	-5.420	19.755	67.140	1.00	17.23
ATOM	1069	CA	THR	145	-5.499	20.957	67.948	1.00	16.45
ATOM	1070	CB	THR	145	-4.558	22.038	67.423	1.00	11.24
ATOM	1071	OG1	THR	145	-5.102	22.603	66.235	1.00	13.97
ATOM	1072	CG2	THR	145	-3.200	21.455	67.117	1.00	10.45
ATOM	1073	C	THR	145	-6.916	21.529	68.011	1.00	17.57
ATOM	1074	O	THR	145	-7.195	22.477	68.760	1.00	19.31
ATOM	1075	N	CYS	146	-7.814	20.967	67.219	1.00	18.92
ATOM	1076	CA	CYS	146	-9.179	21.464	67.202	1.00	19.75
ATOM	1077	CB	CYS	146	-9.867	21.127	65.875	1.00	18.90
ATOM	1078	SG	CYS	146	-9.252	22.012	64.457	1.00	18.11
ATOM	1079	C	CYS	146	-10.070	20.978	68.327	1.00	19.67
ATOM	1080	O	CYS	146	-9.871	19.903	68.883	1.00	20.28
ATOM	1081	N	ASP	147	-11.077	21.790	68.631	1.00	20.72
ATOM	1082	CA	ASP	147	-12.075	21.438	69.626	1.00	20.26

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ATOM	1083	CB	ASP	147	-12.838	22.692	70.058	1.00	22.32
ATOM	1084	CG	ASP	147	-13.989	22.387	71.022	1.00	22.65
ATOM	1085	OD1	ASP	147	-14.620	23.351	71.492	1.00	27.93
ATOM	1086	OD2	ASP	147	-14.268	21.205	71.321	1.00	20.91
ATOM	1087	C	ASP	147	-13.003	20.532	68.823	1.00	21.01
ATOM	1088	O	ASP	147	-13.681	21.006	67.916	1.00	21.58
ATOM	1089	N	PRO	148	-13.082	19.238	69.170	1.00	21.40
ATOM	1090	CD	PRO	148	-12.458	18.598	70.339	1.00	22.95
ATOM	1091	CA	PRO	148	-13.942	18.297	68.443	1.00	23.46
ATOM	1092	CB	PRO	148	-13.607	16.958	69.097	1.00	23.66
ATOM	1093	CG	PRO	148	-13.279	17.350	70.501	1.00	23.01
ATOM	1094	C	PRO	148	-15.449	18.606	68.439	1.00	24.82
ATOM	1095	O	PRO	148	-16.229	17.931	67.755	1.00	26.62
ATOM	1096	N	THR	149	-15.851	19.642	69.169	1.00	23.37
ATOM	1097	CA	THR	149	-17.249	20.028	69.217	1.00	23.77
ATOM	1098	CB	THR	149	-17.760	20.129	70.672	1.00	25.46
ATOM	1099	OG1	THR	149	-17.071	21.198	71.342	1.00	27.05
ATOM	1100	CG2	THR	149	-17.528	18.823	71.426	1.00	23.37
ATOM	1101	C	THR	149	-17.422	21.395	68.546	1.00	24.20
ATOM	1102	O	THR	149	-18.472	22.016	68.666	1.00	27.79
ATOM	1103	N	ASP	150	-16.393	21.892	67.871	1.00	23.28
ATOM	1104	CA	ASP	150	-16.494	23.188	67.206	1.00	22.15
ATOM	1105	CB	ASP	150	-15.236	24.025	67.449	1.00	25.86
ATOM	1106	CG	ASP	150	-15.301	25.396	66.784	1.00	29.04
ATOM	1107	OD1	ASP	150	-16.406	25.959	66.623	1.00	34.21
ATOM	1108	OD2	ASP	150	-14.232	25.922	66.422	1.00	33.77
ATOM	1109	C	ASP	150	-16.686	22.982	65.717	1.00	22.18
ATOM	1110	O	ASP	150	-15.717	22.766	65.002	1.00	22.29
ATOM	1111	N	ARG	151	-17.927	23.092	65.249	1.00	22.20
ATOM	1112	CA	ARG	151	-18.230	22.887	63.841	1.00	25.49
ATOM	1113	CB	ARG	151	-19.699	23.217	63.534	1.00	24.14
ATOM	1114	CG	ARG	151	-20.051	22.998	62.052	1.00	33.87
ATOM	1115	CD	ARG	151	-21.530	23.158	61.748	1.00	37.44
ATOM	1116	NE	ARG	151	-21.991	24.545	61.780	1.00	41.79
ATOM	1117	CZ	ARG	151	-23.272	24.897	61.737	1.00	44.63
ATOM	1118	NH1	ARG	151	-23.612	26.173	61.771	1.00	46.51
ATOM	1119	NH2	ARG	151	-24.219	23.970	61.666	1.00	47.88
ATOM	1120	C	ARG	151	-17.304	23.634	62.868	1.00	26.00
ATOM	1121	O	ARG	151	-16.686	23.018	61.992	1.00	26.64
ATOM	1122	N	GLY	152	-17.164	24.940	63.077	1.00	24.63
ATOM	1123	CA	GLY	152	-16.353	25.769	62.201	1.00	23.08
ATOM	1124	C	GLY	152	-14.912	25.371	61.944	1.00	22.21

ATOM	1125	O	GLY	152	-14.366	25.679	60.880	1.00	21.32
ATOM	1126	N	THR	153	-14.290	24.680	62.891	1.00	19.50
ATOM	1127	CA	THR	153	-12.907	24.295	62.697	1.00	20.75
ATOM	1128	CB	THR	153	-12.068	24.733	63.891	1.00	19.19
ATOM	1129	OG1	THR	153	-12.660	24.228	65.094	1.00	18.79
ATOM	1130	CG2	THR	153	-12.016	26.253	63.970	1.00	21.35
ATOM	1131	C	THR	153	-12.676	22.808	62.429	1.00	21.63
ATOM	1132	O	THR	153	-11.865	22.444	61.570	1.00	18.54
ATOM	1133	N	ILE	154	-13.432	21.961	63.129	1.00	20.87
ATOM	1134	CA	ILE	154	-13.290	20.507	63.011	1.00	18.75
ATOM	1135	CB	ILE	154	-14.071	19.769	64.162	1.00	17.73
ATOM	1136	CG2	ILE	154	-15.576	19.633	63.833	1.00	14.38
ATOM	1137	CG1	ILE	154	-13.452	18.397	64.448	1.00	18.32
ATOM	1138	CD1	ILE	154	-12.043	18.443	65.054	1.00	13.48
ATOM	1139	C	ILE	154	-13.660	19.937	61.630	1.00	18.57
ATOM	1140	O	ILE	154	-13.198	18.862	61.243	1.00	18.31
ATOM	1141	N	ILE	155	-14.484	20.649	60.878	1.00	18.82
ATOM	1142	CA	ILE	155	-14.866	20.149	59.564	1.00	18.77
ATOM	1143	CB	ILE	155	-16.223	20.733	59.071	1.00	17.77
ATOM	1144	CG2	ILE	155	-17.365	20.321	60.018	1.00	12.79
ATOM	1145	CG1	ILE	155	-16.127	22.249	58.924	1.00	15.46
ATOM	1146	CD1	ILE	155	-17.339	22.892	58.331	1.00	20.95
ATOM	1147	C	ILE	155	-13.823	20.489	58.531	1.00	18.45
ATOM	1148	O	ILE	155	-13.819	19.909	57.461	1.00	21.51
ATOM	1149	N	ILE	156	-12.958	21.450	58.819	1.00	18.70
ATOM	1150	CA	ILE	156	-11.985	21.825	57.812	1.00	19.10
ATOM	1151	CB	ILE	156	-11.999	23.375	57.499	1.00	24.79
ATOM	1152	CG2	ILE	156	-13.391	23.974	57.563	1.00	23.59
ATOM	1153	CG1	ILE	156	-11.095	24.139	58.438	1.00	24.77
ATOM	1154	CD1	ILE	156	-9.886	24.631	57.730	1.00	27.97
ATOM	1155	C	ILE	156	-10.544	21.338	57.935	1.00	18.32
ATOM	1156	O	ILE	156	-9.922	21.071	56.918	1.00	18.31
ATOM	1157	N	PHE	157	-10.005	21.200	59.142	1.00	16.26
ATOM	1158	CA	PHE	157	-8.611	20.780	59.280	1.00	15.33
ATOM	1159	CB	PHE	157	-7.984	21.371	60.551	1.00	15.71
ATOM	1160	CG	PHE	157	-7.868	22.858	60.523	1.00	19.05
ATOM	1161	CD1	PHE	157	-8.814	23.654	61.158	1.00	19.74
ATOM	1162	CD2	PHE	157	-6.844	23.476	59.814	1.00	15.77
ATOM	1163	CE1	PHE	157	-8.737	25.057	61.076	1.00	21.28
ATOM	1164	CE2	PHE	157	-6.761	24.855	59.727	1.00	11.63
ATOM	1165	CZ	PHE	157	-7.701	25.650	60.351	1.00	17.65
ATOM	1166	C	PHE	157	-8.278	19.286	59.190	1.00	16.07

ATOM	1167	O	PHE	157	-9.045	18.413	59.622	1.00	17.36
ATOM	1168	N	GLY	158	-7.120	19.002	58.612	1.00	15.17
ATOM	1169	CA	GLY	158	-6.661	17.636	58.493	1.00	13.91
ATOM	1170	C	GLY	158	-5.202	17.664	58.893	1.00	15.87
ATOM	1171	O	GLY	158	-4.664	18.727	59.221	1.00	15.88
ATOM	1172	N	ASP	159	-4.570	16.502	58.936	1.00	15.05
ATOM	1173	CA	ASP	159	-3.154	16.416	59.275	1.00	15.40
ATOM	1174	CB	ASP	159	-2.940	15.457	60.463	1.00	15.44
ATOM	1175	CG	ASP	159	-3.769	15.830	61.705	1.00	18.64
ATOM	1176	OD1	ASP	159	-4.161	17.009	61.869	1.00	15.91
ATOM	1177	OD2	ASP	159	-4.011	14.925	62.537	1.00	17.05
ATOM	1178	C	ASP	159	-2.389	15.895	58.039	1.00	14.41
ATOM	1179	O	ASP	159	-2.976	15.282	57.138	1.00	15.52
ATOM	1180	N	GLY	160	-1.092	16.150	57.982	1.00	15.54
ATOM	1181	CA	GLY	160	-0.289	15.664	56.867	1.00	15.27
ATOM	1182	C	GLY	160	1.032	16.390	56.784	1.00	14.20
ATOM	1183	O	GLY	160	1.268	17.305	57.561	1.00	15.30
ATOM	1184	N	ALA	161	1.877	16.002	55.833	1.00	14.94
ATOM	1185	CA	ALA	161	3.183	16.639	55.637	1.00	12.90
ATOM	1186	CB	ALA	161	4.213	15.946	56.456	1.00	10.14
ATOM	1187	C	ALA	161	3.648	16.630	54.175	1.00	14.81
ATOM	1188	O	ALA	161	3.546	15.614	53.500	1.00	13.51
ATOM	1189	N	GLY	162	4.222	17.738	53.720	1.00	13.25
ATOM	1190	CA	GLY	162	4.738	17.818	52.369	1.00	11.93
ATOM	1191	C	GLY	162	6.182	18.264	52.488	1.00	15.01
ATOM	1192	O	GLY	162	6.554	18.913	53.466	1.00	16.50
ATOM	1193	N	ALA	163	7.007	17.948	51.502	1.00	15.54
ATOM	1194	CA	ALA	163	8.411	18.340	51.550	1.00	13.63
ATOM	1195	CB	ALA	163	9.208	17.280	52.313	1.00	13.01
ATOM	1196	C	ALA	163	8.975	18.539	50.131	1.00	13.17
ATOM	1197	O	ALA	163	8.464	17.963	49.171	1.00	14.29
ATOM	1198	N	ALA	164	10.006	19.370	50.003	1.00	12.92
ATOM	1199	CA	ALA	164	10.649	19.654	48.722	1.00	14.40
ATOM	1200	CB	ALA	164	10.152	20.998	48.168	1.00	12.36
ATOM	1201	C	ALA	164	12.154	19.741	48.941	1.00	16.57
ATOM	1202	O	ALA	164	12.589	20.157	50.018	1.00	16.26
ATOM	1203	N	VAL	165	12.955	19.238	48.003	1.00	14.56
ATOM	1204	CA	VAL	165	14.388	19.430	48.151	1.00	16.17
ATOM	1205	CB	VAL	165	15.265	18.129	48.311	1.00	17.58
ATOM	1206	CG1	VAL	165	14.438	16.906	48.251	1.00	19.88
ATOM	1207	CG2	VAL	165	16.449	18.110	47.355	1.00	14.10
ATOM	1208	C	VAL	165	14.820	20.406	47.060	1.00	17.07

ATOM	1209	O	VAL	165	14.391	20.310	45.899	1.00	16.05
ATOM	1210	N	LEU	166	15.445	21.476	47.545	1.00	16.64
ATOM	1211	CA	LEU	166	15.951	22.606	46.768	1.00	18.62
ATOM	1212	CB	LEU	166	15.790	23.889	47.610	1.00	14.01
ATOM	1213	CG	LEU	166	14.390	24.523	47.704	1.00	14.50
ATOM	1214	CD1	LEU	166	13.290	23.517	47.982	1.00	8.80
ATOM	1215	CD2	LEU	166	14.388	25.636	48.737	1.00	8.99
ATOM	1216	C	LEU	166	17.418	22.407	46.355	1.00	18.44
ATOM	1217	O	LEU	166	18.213	21.841	47.103	1.00	16.64
ATOM	1218	N	ALA	167	17.766	22.851	45.153	1.00	18.70
ATOM	1219	CA	ALA	167	19.133	22.678	44.669	1.00	17.62
ATOM	1220	CB	ALA	167	19.233	21.415	43.808	1.00	17.07
ATOM	1221	C	ALA	167	19.575	23.887	43.871	1.00	15.59
ATOM	1222	O	ALA	167	18.767	24.510	43.201	1.00	13.70
ATOM	1223	N	ALA	168	20.844	24.250	44.019	1.00	16.76
ATOM	1224	CA	ALA	168	21.426	25.389	43.309	1.00	20.62
ATOM	1225	CB	ALA	168	22.893	25.588	43.720	1.00	19.38
ATOM	1226	C	ALA	168	21.330	25.171	41.808	1.00	22.20
ATOM	1227	O	ALA	168	21.574	24.064	41.318	1.00	22.44
ATOM	1228	N	SER	169	21.006	26.239	41.087	1.00	25.50
ATOM	1229	CA	SER	169	20.851	26.192	39.639	1.00	28.03
ATOM	1230	CB	SER	169	19.378	26.029	39.266	1.00	28.33
ATOM	1231	OG	SER	169	18.880	24.786	39.717	1.00	38.30
ATOM	1232	C	SER	169	21.358	27.462	39.000	1.00	28.93
ATOM	1233	O	SER	169	21.405	28.506	39.636	1.00	28.25
ATOM	1234	N	GLU	170	21.739	27.358	37.735	1.00	32.12
ATOM	1235	CA	GLU	170	22.214	28.504	36.979	1.00	35.18
ATOM	1236	CB	GLU	170	22.961	28.042	35.732	1.00	39.81
ATOM	1237	CG	GLU	170	24.005	26.973	35.990	1.00	53.96
ATOM	1238	CD	GLU	170	25.425	27.470	35.786	1.00	63.03
ATOM	1239	OE1	GLU	170	26.335	26.624	35.596	1.00	67.31
ATOM	1240	OE2	GLU	170	25.631	28.706	35.811	1.00	69.26
ATOM	1241	C	GLU	170	20.959	29.230	36.536	1.00	34.81
ATOM	1242	O	GLU	170	20.921	30.462	36.481	1.00	36.31
ATOM	1243	N	GLU	171	19.914	28.446	36.279	1.00	33.97
ATOM	1244	CA	GLU	171	18.647	28.965	35.791	1.00	35.39
ATOM	1245	CB	GLU	171	18.254	28.194	34.531	1.00	40.86
ATOM	1246	CG	GLU	171	18.084	29.066	33.308	1.00	48.50
ATOM	1247	CD	GLU	171	18.593	28.407	32.034	1.00	52.86
ATOM	1248	OE1	GLU	171	19.404	29.043	31.337	1.00	55.60
ATOM	1249	OE2	GLU	171	18.202	27.257	31.726	1.00	55.52
ATOM	1250	C	GLU	171	17.538	28.864	36.826	1.00	32.95

ATOM	1251	O	GLU	171	17.497	27.925	37.617	1.00	30.40
ATOM	1252	N	PRO	172	16.598	29.816	36.809	1.00	32.18
ATOM	1253	CD	PRO	172	16.518	31.058	36.021	1.00	32.24
ATOM	1254	CA	PRO	172	15.522	29.755	37.790	1.00	30.47
ATOM	1255	CB	PRO	172	14.875	31.137	37.706	1.00	29.20
ATOM	1256	CG	PRO	172	15.083	31.512	36.287	1.00	34.68
ATOM	1257	C	PRO	172	14.483	28.681	37.696	1.00	28.85
ATOM	1258	O	PRO	172	14.043	28.247	36.643	1.00	26.60
ATOM	1259	N	GLY	173	14.166	28.237	38.888	1.00	31.37
ATOM	1260	CA	GLY	173	13.112	27.306	39.135	1.00	26.36
ATOM	1261	C	GLY	173	12.357	28.374	39.915	1.00	23.78
ATOM	1262	O	GLY	173	11.473	29.016	39.364	1.00	22.60
ATOM	1263	N	ILE	174	12.816	28.681	41.135	1.00	20.84
ATOM	1264	CA	ILE	174	12.180	29.707	41.962	1.00	16.67
ATOM	1265	CB	ILE	174	12.539	29.557	43.470	1.00	17.23
ATOM	1266	CG2	ILE	174	11.698	30.535	44.304	1.00	16.53
ATOM	1267	CG1	ILE	174	12.262	28.119	43.932	1.00	15.97
ATOM	1268	CD1	ILE	174	12.584	27.832	45.389	1.00	15.50
ATOM	1269	C	ILE	174	12.576	31.096	41.445	1.00	14.52
ATOM	1270	O	ILE	174	13.666	31.589	41.708	1.00	12.11
ATOM	1271	N	ILE	175	11.654	31.716	40.717	1.00	13.34
ATOM	1272	CA	ILE	175	11.871	33.020	40.095	1.00	15.21
ATOM	1273	CB	ILE	175	10.801	33.288	38.980	1.00	16.23
ATOM	1274	CG2	ILE	175	10.877	34.733	38.446	1.00	13.07
ATOM	1275	CG1	ILE	175	10.967	32.272	37.851	1.00	16.05
ATOM	1276	CD1	ILE	175	9.765	32.198	36.993	1.00	14.12
ATOM	1277	C	ILE	175	11.802	34.128	41.107	1.00	14.96
ATOM	1278	O	ILE	175	12.681	34.990	41.169	1.00	15.57
ATOM	1279	N	SER	176	10.737	34.094	41.901	1.00	18.24
ATOM	1280	CA	SER	176	10.474	35.097	42.930	1.00	17.18
ATOM	1281	CB	SER	176	9.533	36.168	42.377	1.00	14.59
ATOM	1282	OG	SER	176	10.238	37.366	42.226	1.00	29.98
ATOM	1283	C	SER	176	9.765	34.433	44.102	1.00	15.85
ATOM	1284	O	SER	176	9.148	33.379	43.957	1.00	14.20
ATOM	1285	N	THR	177	9.742	35.145	45.216	1.00	15.53
ATOM	1286	CA	THR	177	9.103	34.703	46.455	1.00	16.19
ATOM	1287	CB	THR	177	10.160	33.930	47.268	1.00	18.77
ATOM	1288	OG1	THR	177	9.862	32.524	47.286	1.00	19.90
ATOM	1289	CG2	THR	177	10.318	34.477	48.589	1.00	12.77
ATOM	1290	C	THR	177	8.609	35.991	47.154	1.00	14.66
ATOM	1291	O	THR	177	9.302	37.007	47.134	1.00	13.34
ATOM	1292	N	HIS	178	7.383	36.005	47.664	1.00	14.84

ATOM	1293	CA	HIS	178	6.872	37.217	48.309	1.00	15.87
ATOM	1294	CB	HIS	178	5.906	37.986	47.383	1.00	17.27
ATOM	1295	CG	HIS	178	6.485	38.306	46.036	1.00	17.48
ATOM	1296	CD2	HIS	178	6.983	39.460	45.530	1.00	16.57
ATOM	1297	ND1	HIS	178	6.673	37.348	45.065	1.00	18.29
ATOM	1298	CE1	HIS	178	7.272	37.888	44.026	1.00	16.37
ATOM	1299	NE2	HIS	178	7.473	39.169	44.278	1.00	17.81
ATOM	1300	C	HIS	178	6.158	36.831	49.591	1.00	15.72
ATOM	1301	O	HIS	178	5.337	35.920	49.586	1.00	16.67
ATOM	1302	N	LEU	179	6.399	37.596	50.651	1.00	18.11
ATOM	1303	CA	LEU	179	5.825	37.342	51.980	1.00	16.15
ATOM	1304	CB	LEU	179	6.922	36.819	52.919	1.00	12.57
ATOM	1305	CG	LEU	179	7.779	35.656	52.438	1.00	11.03
ATOM	1306	CD1	LEU	179	8.888	35.400	53.460	1.00	12.66
ATOM	1307	CD2	LEU	179	6.890	34.424	52.234	1.00	6.30
ATOM	1308	C	LEU	179	5.283	38.628	52.585	1.00	12.17
ATOM	1309	O	LEU	179	5.890	39.688	52.444	1.00	13.81
ATOM	1310	N	HIS	180	4.150	38.533	53.267	1.00	12.44
ATOM	1311	CA	HIS	180	3.540	39.693	53.921	1.00	12.78
ATOM	1312	CB	HIS	180	2.446	40.328	53.057	1.00	13.45
ATOM	1313	CG	HIS	180	2.962	41.024	51.843	1.00	19.48
ATOM	1314	CD2	HIS	180	3.708	42.141	51.703	1.00	17.37
ATOM	1315	ND1	HIS	180	2.744	40.542	50.564	1.00	21.80
ATOM	1316	CE1	HIS	180	3.341	41.333	49.697	1.00	15.84
ATOM	1317	NE2	HIS	180	3.932	42.310	50.349	1.00	19.49
ATOM	1318	C	HIS	180	2.896	39.231	55.214	1.00	13.23
ATOM	1319	O	HIS	180	2.645	38.044	55.405	1.00	12.39
ATOM	1320	N	ALA	181	2.583	40.186	56.074	1.00	14.47
ATOM	1321	CA	ALA	181	1.935	39.887	57.334	1.00	17.30
ATOM	1322	CB	ALA	181	2.951	39.301	58.354	1.00	15.81
ATOM	1323	C	ALA	181	1.301	41.146	57.884	1.00	16.40
ATOM	1324	O	ALA	181	1.698	42.252	57.523	1.00	17.38
ATOM	1325	N	ASP	182	0.249	40.980	58.669	1.00	16.78
ATOM	1326	CA	ASP	182	-0.410	42.094	59.322	1.00	15.57
ATOM	1327	CB	ASP	182	-1.570	42.628	58.500	1.00	18.61
ATOM	1328	CG	ASP	182	-2.190	43.887	59.101	1.00	23.28
ATOM	1329	OD1	ASP	182	-2.034	44.135	60.311	1.00	20.82
ATOM	1330	OD2	ASP	182	-2.842	44.645	58.349	1.00	23.55
ATOM	1331	C	ASP	182	-0.931	41.555	60.641	1.00	14.33
ATOM	1332	O	ASP	182	-2.028	41.003	60.701	1.00	13.27
ATOM	1333	N	GLY	183	-0.179	41.828	61.700	1.00	15.90
ATOM	1334	CA	GLY	183	-0.521	41.380	63.042	1.00	14.84

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ATOM   1335  C    GLY   183      -1.797  41.904  63.666  1.00  15.95
ATOM   1336  O    GLY   183      -2.313  41.304  64.612  1.00  17.51
ATOM   1337  N    SER   184      -2.329  43.004  63.154  1.00  17.98
ATOM   1338  CA   SER   184      -3.563  43.565  63.691  1.00  17.21
ATOM   1339  CB   SER   184      -3.920  44.894  62.990  1.00  16.52
ATOM   1340  OG   SER   184      -4.333  44.703  61.645  1.00  17.83
ATOM   1341  C    SER   184      -4.716  42.569  63.610  1.00  18.77
ATOM   1342  O    SER   184      -5.766  42.793  64.208  1.00  19.65
ATOM   1343  N    TYR   185      -4.521  41.461  62.898  1.00  18.16
ATOM   1344  CA   TYR   185      -5.559  40.442  62.751  1.00  19.60
ATOM   1345  CB   TYR   185      -5.659  40.016  61.291  1.00  22.65
ATOM   1346  CG   TYR   185      -6.111  41.067  60.332  1.00  22.40
ATOM   1347  CD1  TYR   185      -7.476  41.301  60.123  1.00  27.53
ATOM   1348  CE1  TYR   185      -7.913  42.230  59.184  1.00  28.31
ATOM   1349  CD2  TYR   185      -5.188  41.791  59.583  1.00  25.18
ATOM   1350  CE2  TYR   185      -5.615  42.720  58.641  1.00  28.77
ATOM   1351  CZ   TYR   185      -6.984  42.932  58.451  1.00  30.44
ATOM   1352  OH   TYR   185      -7.429  43.852  57.523  1.00  35.19
ATOM   1353  C    TYR   185      -5.331  39.169  63.577  1.00  21.09
ATOM   1354  O    TYR   185      -5.945  38.129  63.313  1.00  19.29
ATOM   1355  N    GLY   186      -4.457  39.238  64.569  1.00  23.82
ATOM   1356  CA   GLY   186      -4.165  38.066  65.372  1.00  24.39
ATOM   1357  C    GLY   186      -5.337  37.374  66.038  1.00  25.13
ATOM   1358  O    GLY   186      -5.348  36.138  66.142  1.00  24.30
ATOM   1359  N    GLU   187      -6.328  38.153  66.472  1.00  26.29
ATOM   1360  CA   GLU   187      -7.490  37.587  67.150  1.00  27.23
ATOM   1361  CB   GLU   187      -8.322  38.660  67.836  1.00  34.06
ATOM   1362  CG   GLU   187      -7.554  39.728  68.550  1.00  49.23
ATOM   1363  CD   GLU   187      -7.870  41.099  67.974  1.00  59.34
ATOM   1364  OE1  GLU   187      -8.581  41.894  68.647  1.00  62.15
ATOM   1365  OE2  GLU   187      -7.437  41.356  66.821  1.00  62.39
ATOM   1366  C    GLU   187      -8.441  36.790  66.282  1.00  25.31
ATOM   1367  O    GLU   187      -9.216  35.997  66.806  1.00  26.07
ATOM   1368  N    LEU   188      -8.419  36.992  64.971  1.00  21.69
ATOM   1369  CA   LEU   188      -9.355  36.266  64.106  1.00  20.85
ATOM   1370  CB   LEU   188      -9.549  37.004  62.780  1.00  20.43
ATOM   1371  CG   LEU   188      -9.906  38.488  62.843  1.00  21.62
ATOM   1372  CD1  LEU   188     -10.085  38.969  61.429  1.00  17.57
ATOM   1373  CD2  LEU   188     -11.189  38.717  63.646  1.00  24.05
ATOM   1374  C    LEU   188      -9.002  34.800  63.830  1.00  18.78
ATOM   1375  O    LEU   188      -9.837  34.046  63.333  1.00  17.06
ATOM   1376  N    LEU   189      -7.786  34.391  64.172  1.00  19.01
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ATOM	1377	CA	LEU	189	-7.338	33.021	63.922	1.00	19.46
ATOM	1378	CB	LEU	189	-6.897	32.907	62.463	1.00	23.06
ATOM	1379	CG	LEU	189	-6.422	31.587	61.872	1.00	23.21
ATOM	1380	CD1	LEU	189	-7.435	30.493	62.157	1.00	24.24
ATOM	1381	CD2	LEU	189	-6.253	31.811	60.355	1.00	25.52
ATOM	1382	C	LEU	189	-6.164	32.746	64.850	1.00	18.26
ATOM	1383	O	LEU	189	-5.082	33.338	64.688	1.00	15.62
ATOM	1384	N	THR	190	-6.381	31.865	65.830	1.00	19.34
ATOM	1385	CA	THR	190	-5.344	31.565	66.812	1.00	18.01
ATOM	1386	CB	THR	190	-5.629	32.300	68.161	1.00	19.93
ATOM	1387	OG1	THR	190	-6.626	31.568	68.891	1.00	16.04
ATOM	1388	CG2	THR	190	-6.138	33.725	67.941	1.00	17.80
ATOM	1389	C	THR	190	-5.205	30.097	67.195	1.00	16.98
ATOM	1390	O	THR	190	-6.115	29.297	67.001	1.00	18.09
ATOM	1391	N	LEU	191	-4.047	29.768	67.760	1.00	16.74
ATOM	1392	CA	LEU	191	-3.756	28.442	68.291	1.00	18.21
ATOM	1393	CB	LEU	191	-2.964	27.564	67.320	1.00	17.25
ATOM	1394	CG	LEU	191	-2.668	26.154	67.862	1.00	16.11
ATOM	1395	CD1	LEU	191	-3.971	25.456	68.301	1.00	12.12
ATOM	1396	CD2	LEU	191	-1.939	25.350	66.777	1.00	13.32
ATOM	1397	C	LEU	191	-2.902	28.732	69.523	1.00	17.40
ATOM	1398	O	LEU	191	-1.678	28.923	69.406	1.00	16.00
ATOM	1399	N	PRO	192	-3.552	28.872	70.699	1.00	17.91
ATOM	1400	CD	PRO	192	-4.998	28.697	70.955	1.00	16.83
ATOM	1401	CA	PRO	192	-2.833	29.160	71.947	1.00	17.87
ATOM	1402	CB	PRO	192	-3.962	29.291	72.985	1.00	15.97
ATOM	1403	CG	PRO	192	-5.207	29.543	72.180	1.00	13.76
ATOM	1404	C	PRO	192	-1.891	28.029	72.341	1.00	20.29
ATOM	1405	O	PRO	192	-2.204	26.856	72.118	1.00	23.59
ATOM	1406	N	ASN	193	-0.716	28.367	72.866	1.00	19.91
ATOM	1407	CA	ASN	193	0.192	27.323	73.352	1.00	20.07
ATOM	1408	CB	ASN	193	1.636	27.821	73.421	1.00	18.90
ATOM	1409	CG	ASN	193	2.293	27.892	72.063	1.00	15.69
ATOM	1410	OD1	ASN	193	3.046	28.813	71.775	1.00	19.86
ATOM	1411	ND2	ASN	193	2.054	26.889	71.241	1.00	13.35
ATOM	1412	C	ASN	193	-0.315	27.105	74.767	1.00	19.42
ATOM	1413	O	ASN	193	-1.255	27.778	75.188	1.00	18.43
ATOM	1414	N	ALA	194	0.305	26.211	75.522	1.00	22.05
ATOM	1415	CA	ALA	194	-0.117	25.996	76.907	1.00	22.72
ATOM	1416	CB	ALA	194	0.733	24.901	77.540	1.00	21.20
ATOM	1417	C	ALA	194	0.044	27.291	77.706	1.00	24.20
ATOM	1418	O	ALA	194	1.082	27.944	77.622	1.00	23.62

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ATOM    1419  N    ASP   195     -1.003   27.676   78.437   1.00   26.45
ATOM    1420  CA   ASP   195     -0.948   28.885   79.268   1.00   29.14
ATOM    1421  CB   ASP   195     -2.344   29.381   79.653   1.00   32.79
ATOM    1422  CG   ASP   195     -2.343   30.800   80.227   1.00   35.91
ATOM    1423  OD1  ASP   195     -1.363   31.188   80.892   1.00   36.85
ATOM    1424  OD2  ASP   195     -3.332   31.527   80.010   1.00   37.10
ATOM    1425  C    ASP   195     -0.175   28.489   80.521   1.00   29.19
ATOM    1426  O    ASP   195     -0.616   27.648   81.322   1.00   27.55
ATOM    1427  N    ARG   196      1.011   29.048   80.682   1.00   28.78
ATOM    1428  CA   ARG   196      1.805   28.686   81.827   1.00   29.41
ATOM    1429  CB   ARG   196      3.270   28.697   81.464   1.00   25.59
ATOM    1430  CG   ARG   196      3.569   27.602   80.456   1.00   21.85
ATOM    1431  CD   ARG   196      4.955   27.721   79.854   1.00   19.85
ATOM    1432  NE   ARG   196      5.129   26.743   78.792   1.00   21.17
ATOM    1433  CZ   ARG   196      5.653   25.527   78.953   1.00   23.06
ATOM    1434  NH1  ARG   196      5.793   24.705   77.909   1.00   24.67
ATOM    1435  NH2  ARG   196      6.048   25.134   80.161   1.00   21.86
ATOM    1436  C    ARG   196      1.475   29.423   83.102   1.00   33.73
ATOM    1437  O    ARG   196      1.761   28.916   84.178   1.00   34.58
ATOM    1438  N    VAL   197      0.806   30.572   82.998   1.00   35.99
ATOM    1439  CA   VAL   197      0.411   31.313   84.199   1.00   38.15
ATOM    1440  CB   VAL   197      0.637   32.861   84.081   1.00   38.24
ATOM    1441  CG1  VAL   197      1.624   33.210   82.976   1.00   38.09
ATOM    1442  CG2  VAL   197     -0.640   33.609   83.881   1.00   41.26
ATOM    1443  C    VAL   197     -1.026   30.977   84.632   1.00   38.79
ATOM    1444  O    VAL   197     -1.308   30.912   85.826   1.00   42.62
ATOM    1445  N    ASN   198     -1.910   30.680   83.675   1.00   38.90
ATOM    1446  CA   ASN   198     -3.322   30.281   83.950   1.00   38.18
ATOM    1447  CB   ASN   198     -4.317   31.343   83.469   1.00   41.18
ATOM    1448  CG   ASN   198     -4.081   32.694   84.090   1.00   45.37
ATOM    1449  OD1  ASN   198     -4.027   33.697   83.387   1.00   48.83
ATOM    1450  ND2  ASN   198     -3.924   32.726   85.398   1.00   43.15
ATOM    1451  C    ASN   198     -3.610   29.036   83.128   1.00   37.84
ATOM    1452  O    ASN   198     -4.273   29.120   82.088   1.00   38.43
ATOM    1453  N    PRO   199     -3.166   27.878   83.626   1.00   37.36
ATOM    1454  CD   PRO   199     -2.391   27.751   84.853   1.00   37.84
ATOM    1455  CA   PRO   199     -3.349   26.578   82.958   1.00   37.75
ATOM    1456  CB   PRO   199     -2.699   25.608   83.950   1.00   37.42
ATOM    1457  CG   PRO   199     -1.652   26.461   84.607   1.00   38.80
ATOM    1458  C    PRO   199     -4.764   26.141   82.617   1.00   38.95
ATOM    1459  O    PRO   199     -4.952   25.177   81.862   1.00   39.18
ATOM    1460  N    GLU   200     -5.766   26.815   83.188   1.00   39.42
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ATOM	1461	CA	GLU	200	-7.151	26.436	82.913	1.00	40.43
ATOM	1462	CB	GLU	200	-8.155	27.088	83.886	1.00	41.13
ATOM	1463	CG	GLU	200	-7.594	27.619	85.177	1.00	44.21
ATOM	1464	CD	GLU	200	-6.943	28.962	85.000	1.00	46.20
ATOM	1465	OE1	GLU	200	-7.643	29.918	84.597	1.00	48.69
ATOM	1466	OE2	GLU	200	-5.729	29.052	85.259	1.00	47.66
ATOM	1467	C	GLU	200	-7.519	26.855	81.502	1.00	38.01
ATOM	1468	O	GLU	200	-8.411	26.278	80.886	1.00	37.64
ATOM	1469	N	ASN	201	-6.829	27.879	81.015	1.00	35.27
ATOM	1470	CA	ASN	201	-7.074	28.417	79.693	1.00	33.74
ATOM	1471	CB	ASN	201	-6.239	29.681	79.497	1.00	37.85
ATOM	1472	CG	ASN	201	-6.736	30.824	80.364	1.00	41.82
ATOM	1473	OD1	ASN	201	-7.817	30.735	80.946	1.00	43.42
ATOM	1474	ND2	ASN	201	-5.973	31.909	80.433	1.00	41.14
ATOM	1475	C	ASN	201	-6.923	27.421	78.548	1.00	30.44
ATOM	1476	O	ASN	201	-5.994	26.614	78.515	1.00	27.98
ATOM	1477	N	SER	202	-7.910	27.454	77.653	1.00	27.43
ATOM	1478	CA	SER	202	-7.977	26.579	76.499	1.00	24.62
ATOM	1479	CB	SER	202	-9.236	26.920	75.696	1.00	23.78
ATOM	1480	OG	SER	202	-9.434	26.004	74.638	1.00	27.42
ATOM	1481	C	SER	202	-6.746	26.674	75.593	1.00	21.97
ATOM	1482	O	SER	202	-6.075	27.705	75.555	1.00	22.30
ATOM	1483	N	ILE	203	-6.435	25.579	74.898	1.00	20.90
ATOM	1484	CA	ILE	203	-5.322	25.546	73.952	1.00	17.72
ATOM	1485	CB	ILE	203	-4.201	24.561	74.364	1.00	15.38
ATOM	1486	CG2	ILE	203	-3.466	25.071	75.585	1.00	13.82
ATOM	1487	CG1	ILE	203	-4.744	23.142	74.550	1.00	14.34
ATOM	1488	CD1	ILE	203	-3.651	22.115	74.810	1.00	12.82
ATOM	1489	C	ILE	203	-5.864	25.143	72.572	1.00	18.46
ATOM	1490	O	ILE	203	-5.118	24.750	71.683	1.00	18.97
ATOM	1491	N	HIS	204	-7.176	25.259	72.404	1.00	19.61
ATOM	1492	CA	HIS	204	-7.846	24.910	71.144	1.00	20.44
ATOM	1493	CB	HIS	204	-9.335	24.665	71.373	1.00	20.78
ATOM	1494	CG	HIS	204	-9.637	23.341	71.979	1.00	23.42
ATOM	1495	CD2	HIS	204	-9.066	22.127	71.787	1.00	22.01
ATOM	1496	ND1	HIS	204	-10.650	23.152	72.890	1.00	24.72
ATOM	1497	CE1	HIS	204	-10.694	21.879	73.236	1.00	24.99
ATOM	1498	NE2	HIS	204	-9.745	21.238	72.579	1.00	26.16
ATOM	1499	C	HIS	204	-7.732	25.982	70.094	1.00	19.19
ATOM	1500	O	HIS	204	-7.672	27.164	70.417	1.00	18.80
ATOM	1501	N	LEU	205	-7.765	25.549	68.834	1.00	19.58
ATOM	1502	CA	LEU	205	-7.699	26.448	67.677	1.00	19.69

ATOM	1503	CB	LEU	205	-7.475	25.601	66.398	1.00	19.66
ATOM	1504	CG	LEU	205	-7.104	26.238	65.052	1.00	19.36
ATOM	1505	CD1	LEU	205	-6.309	25.259	64.201	1.00	18.01
ATOM	1506	CD2	LEU	205	-8.366	26.671	64.321	1.00	18.66
ATOM	1507	C	LEU	205	-8.996	27.273	67.597	1.00	17.98
ATOM	1508	O	LEU	205	-10.088	26.731	67.804	1.00	20.78
ATOM	1509	N	THR	206	-8.878	28.584	67.390	1.00	17.96
ATOM	1510	CA	THR	206	-10.047	29.457	67.270	1.00	15.94
ATOM	1511	CB	THR	206	-10.088	30.555	68.377	1.00	15.69
ATOM	1512	OG1	THR	206	-8.999	31.465	68.204	1.00	15.39
ATOM	1513	CG2	THR	206	-9.996	29.934	69.775	1.00	17.86
ATOM	1514	C	THR	206	-10.010	30.137	65.886	1.00	17.78
ATOM	1515	O	THR	206	-8.930	30.414	65.335	1.00	15.94
ATOM	1516	N	MET	207	-11.189	30.405	65.330	1.00	16.50
ATOM	1517	CA	MET	207	-11.285	31.040	64.025	1.00	18.56
ATOM	1518	CB	MET	207	-11.105	30.003	62.931	1.00	20.76
ATOM	1519	CG	MET	207	-11.293	30.550	61.542	1.00	23.66
ATOM	1520	SD	MET	207	-10.858	29.292	60.353	1.00	32.43
ATOM	1521	CE	MET	207	-12.262	28.166	60.555	1.00	31.26
ATOM	1522	C	MET	207	-12.599	31.742	63.776	1.00	18.83
ATOM	1523	O	MET	207	-13.666	31.152	63.934	1.00	19.82
ATOM	1524	N	ALA	208	-12.502	32.998	63.360	1.00	19.18
ATOM	1525	CA	ALA	208	-13.651	33.815	63.019	1.00	18.29
ATOM	1526	CB	ALA	208	-13.378	35.272	63.346	1.00	18.93
ATOM	1527	C	ALA	208	-13.748	33.614	61.513	1.00	20.13
ATOM	1528	O	ALA	208	-13.381	34.478	60.723	1.00	19.87
ATOM	1529	N	GLY	209	-14.190	32.425	61.134	1.00	20.42
ATOM	1530	CA	GLY	209	-14.305	32.056	59.737	1.00	23.52
ATOM	1531	C	GLY	209	-14.623	33.114	58.701	1.00	24.44
ATOM	1532	O	GLY	209	-13.771	33.456	57.884	1.00	26.52
ATOM	1533	N	ASN	210	-15.839	33.640	58.738	1.00	23.37
ATOM	1534	CA	ASN	210	-16.291	34.615	57.758	1.00	25.94
ATOM	1535	CB	ASN	210	-17.724	35.006	58.035	1.00	24.49
ATOM	1536	CG	ASN	210	-18.633	33.818	58.029	1.00	25.13
ATOM	1537	OD1	ASN	210	-18.680	33.068	57.061	1.00	25.86
ATOM	1538	ND2	ASN	210	-19.325	33.603	59.130	1.00	25.81
ATOM	1539	C	ASN	210	-15.426	35.831	57.639	1.00	26.62
ATOM	1540	O	ASN	210	-15.214	36.334	56.545	1.00	27.59
ATOM	1541	N	GLU	211	-14.893	36.295	58.756	1.00	28.44
ATOM	1542	CA	GLU	211	-14.021	37.444	58.725	1.00	30.98
ATOM	1543	CB	GLU	211	-13.858	38.066	60.105	1.00	38.28
ATOM	1544	CG	GLU	211	-13.220	39.454	60.039	1.00	46.67

ATOM	1545	CD	GLU	211	-13.382	40.257	61.323	1.00	53.33
ATOM	1546	OE1	GLU	211	-14.146	39.833	62.229	1.00	54.19
ATOM	1547	OE2	GLU	211	-12.752	41.339	61.419	1.00	55.95
ATOM	1548	C	GLU	211	-12.680	37.116	58.111	1.00	28.94
ATOM	1549	O	GLU	211	-12.157	37.922	57.332	1.00	29.24
ATOM	1550	N	VAL	212	-12.110	35.950	58.414	1.00	25.15
ATOM	1551	CA	VAL	212	-10.808	35.645	57.793	1.00	25.13
ATOM	1552	CB	VAL	212	-10.004	34.469	58.486	1.00	23.52
ATOM	1553	CG1	VAL	212	-10.492	34.190	59.896	1.00	20.23
ATOM	1554	CG2	VAL	212	-9.958	33.220	57.653	1.00	23.20
ATOM	1555	C	VAL	212	-10.971	35.405	56.272	1.00	23.49
ATOM	1556	O	VAL	212	-10.095	35.769	55.493	1.00	20.62
ATOM	1557	N	PHE	213	-12.115	34.859	55.853	1.00	22.05
ATOM	1558	CA	PHE	213	-12.371	34.627	54.431	1.00	22.19
ATOM	1559	CB	PHE	213	-13.718	33.954	54.244	1.00	20.95
ATOM	1560	CG	PHE	213	-14.116	33.771	52.794	1.00	23.47
ATOM	1561	CD1	PHE	213	-14.758	34.788	52.101	1.00	22.38
ATOM	1562	CD2	PHE	213	-13.833	32.587	52.132	1.00	21.51
ATOM	1563	CE1	PHE	213	-15.098	34.634	50.784	1.00	23.71
ATOM	1564	CE2	PHE	213	-14.173	32.423	50.813	1.00	26.06
ATOM	1565	CZ	PHE	213	-14.805	33.446	50.133	1.00	25.34
ATOM	1566	C	PHE	213	-12.307	35.935	53.645	1.00	22.07
ATOM	1567	O	PHE	213	-11.618	36.045	52.629	1.00	22.83
ATOM	1568	N	LYS	214	-13.034	36.923	54.125	1.00	21.82
ATOM	1569	CA	LYS	214	-13.068	38.218	53.483	1.00	24.25
ATOM	1570	CB	LYS	214	-13.940	39.173	54.297	1.00	30.10
ATOM	1571	CG	LYS	214	-13.836	40.628	53.872	1.00	44.70
ATOM	1572	CD	LYS	214	-14.623	41.566	54.788	1.00	52.40
ATOM	1573	CE	LYS	214	-14.503	43.023	54.297	1.00	58.60
ATOM	1574	NZ	LYS	214	-15.360	43.985	55.079	1.00	62.34
ATOM	1575	C	LYS	214	-11.659	38.785	53.321	1.00	24.36
ATOM	1576	O	LYS	214	-11.255	39.184	52.229	1.00	25.14
ATOM	1577	N	VAL	215	-10.886	38.766	54.401	1.00	22.58
ATOM	1578	CA	VAL	215	-9.535	39.297	54.379	1.00	19.75
ATOM	1579	CB	VAL	215	-8.960	39.458	55.815	1.00	20.47
ATOM	1580	CG1	VAL	215	-7.489	39.874	55.757	1.00	19.57
ATOM	1581	CG2	VAL	215	-9.750	40.508	56.579	1.00	16.54
ATOM	1582	C	VAL	215	-8.626	38.431	53.528	1.00	19.18
ATOM	1583	O	VAL	215	-7.808	38.953	52.789	1.00	22.10
ATOM	1584	N	ALA	216	-8.801	37.118	53.586	1.00	18.14
ATOM	1585	CA	ALA	216	-7.964	36.216	52.808	1.00	19.00
ATOM	1586	CB	ALA	216	-8.183	34.775	53.218	1.00	17.94

ATOM	1587	C	ALA	216	-8.146	36.371	51.303	1.00	17.97
ATOM	1588	O	ALA	216	-7.166	36.285	50.563	1.00	16.52
ATOM	1589	N	VAL	217	-9.376	36.570	50.834	1.00	19.60
ATOM	1590	CA	VAL	217	-9.580	36.732	49.385	1.00	22.11
ATOM	1591	CB	VAL	217	-11.097	36.729	48.968	1.00	22.38
ATOM	1592	CG1	VAL	217	-11.728	35.399	49.336	1.00	24.36
ATOM	1593	CG2	VAL	217	-11.843	37.880	49.608	1.00	22.47
ATOM	1594	C	VAL	217	-8.924	38.008	48.896	1.00	18.40
ATOM	1595	O	VAL	217	-8.310	38.042	47.843	1.00	21.00
ATOM	1596	N	THR	218	-9.010	39.036	49.719	1.00	17.20
ATOM	1597	CA	THR	218	-8.436	40.320	49.411	1.00	14.93
ATOM	1598	CB	THR	218	-8.891	41.344	50.441	1.00	16.36
ATOM	1599	OG1	THR	218	-10.305	41.510	50.313	1.00	19.70
ATOM	1600	CG2	THR	218	-8.199	42.683	50.255	1.00	18.44
ATOM	1601	C	THR	218	-6.924	40.269	49.340	1.00	15.88
ATOM	1602	O	THR	218	-6.331	40.741	48.372	1.00	16.80
ATOM	1603	N	GLU	219	-6.288	39.675	50.337	1.00	14.67
ATOM	1604	CA	GLU	219	-4.834	39.621	50.364	1.00	15.50
ATOM	1605	CB	GLU	219	-4.326	39.424	51.791	1.00	16.59
ATOM	1606	CG	GLU	219	-4.718	40.605	52.700	1.00	20.03
ATOM	1607	CD	GLU	219	-4.314	41.974	52.138	1.00	22.69
ATOM	1608	OE1	GLU	219	-4.933	42.982	52.531	1.00	28.82
ATOM	1609	OE2	GLU	219	-3.366	42.062	51.320	1.00	23.87
ATOM	1610	C	GLU	219	-4.201	38.647	49.402	1.00	14.45
ATOM	1611	O	GLU	219	-3.084	38.884	48.945	1.00	13.24
ATOM	1612	N	LEU	220	-4.879	37.537	49.135	1.00	15.55
ATOM	1613	CA	LEU	220	-4.379	36.571	48.174	1.00	17.76
ATOM	1614	CB	LEU	220	-5.127	35.233	48.275	1.00	15.75
ATOM	1615	CG	LEU	220	-4.703	34.362	49.466	1.00	13.65
ATOM	1616	CD1	LEU	220	-5.621	33.177	49.608	1.00	13.89
ATOM	1617	CD2	LEU	220	-3.278	33.915	49.310	1.00	9.45
ATOM	1618	C	LEU	220	-4.491	37.186	46.769	1.00	17.28
ATOM	1619	O	LEU	220	-3.618	36.957	45.932	1.00	20.62
ATOM	1620	N	ALA	221	-5.519	38.013	46.543	1.00	15.38
ATOM	1621	CA	ALA	221	-5.699	38.707	45.268	1.00	13.63
ATOM	1622	CB	ALA	221	-6.956	39.572	45.290	1.00	13.06
ATOM	1623	C	ALA	221	-4.483	39.593	45.062	1.00	14.49
ATOM	1624	O	ALA	221	-3.799	39.506	44.042	1.00	15.11
ATOM	1625	N	HIS	222	-4.199	40.420	46.060	1.00	15.06
ATOM	1626	CA	HIS	222	-3.052	41.322	46.023	1.00	13.99
ATOM	1627	CB	HIS	222	-2.963	42.146	47.310	1.00	14.09
ATOM	1628	CG	HIS	222	-4.070	43.143	47.474	1.00	14.06

ATOM	1629	CD2	HIS	222	-4.916	43.696	46.587	1.00	14.55
ATOM	1630	ND1	HIS	222	-4.375	43.696	48.696	1.00	18.88
ATOM	1631	CE1	HIS	222	-5.373	44.557	48.548	1.00	14.63
ATOM	1632	NE2	HIS	222	-5.712	44.568	47.267	1.00	15.29
ATOM	1633	C	HIS	222	-1.688	40.670	45.822	1.00	14.98
ATOM	1634	O	HIS	222	-0.889	41.160	45.031	1.00	14.23
ATOM	1635	N	ILE	223	-1.401	39.586	46.544	1.00	16.27
ATOM	1636	CA	ILE	223	-0.085	38.968	46.424	1.00	16.31
ATOM	1637	CB	ILE	223	0.305	38.060	47.651	1.00	13.50
ATOM	1638	CG2	ILE	223	-0.428	36.703	47.605	1.00	7.94
ATOM	1639	CG1	ILE	223	1.832	37.845	47.659	1.00	9.54
ATOM	1640	CD1	ILE	223	2.391	37.258	48.918	1.00	6.66
ATOM	1641	C	ILE	223	0.147	38.247	45.104	1.00	16.55
ATOM	1642	O	ILE	223	1.262	38.252	44.602	1.00	17.07
ATOM	1643	N	VAL	224	-0.896	37.631	44.548	1.00	16.32
ATOM	1644	CA	VAL	224	-0.779	36.921	43.279	1.00	17.38
ATOM	1645	CB	VAL	224	-2.048	36.134	42.978	1.00	19.20
ATOM	1646	CG1	VAL	224	-2.002	35.592	41.592	1.00	25.61
ATOM	1647	CG2	VAL	224	-2.190	34.973	43.966	1.00	17.08
ATOM	1648	C	VAL	224	-0.484	37.939	42.162	1.00	17.21
ATOM	1649	O	VAL	224	0.451	37.768	41.380	1.00	16.01
ATOM	1650	N	ASP	225	-1.258	39.019	42.127	1.00	16.48
ATOM	1651	CA	ASP	225	-1.056	40.083	41.149	1.00	15.12
ATOM	1652	CB	ASP	225	-2.143	41.153	41.268	1.00	14.30
ATOM	1653	CG	ASP	225	-3.447	40.741	40.596	1.00	19.10
ATOM	1654	OD1	ASP	225	-3.404	39.810	39.773	1.00	24.96
ATOM	1655	OD2	ASP	225	-4.511	41.337	40.886	1.00	17.50
ATOM	1656	C	ASP	225	0.320	40.701	41.289	1.00	15.40
ATOM	1657	O	ASP	225	0.988	40.967	40.301	1.00	16.68
ATOM	1658	N	GLU	226	0.748	40.890	42.524	1.00	14.76
ATOM	1659	CA	GLU	226	2.061	41.448	42.809	1.00	14.30
ATOM	1660	CB	GLU	226	2.252	41.644	44.327	1.00	17.32
ATOM	1661	CG	GLU	226	3.506	42.415	44.698	1.00	15.27
ATOM	1662	CD	GLU	226	3.875	42.307	46.167	1.00	15.45
ATOM	1663	OE1	GLU	226	5.057	42.504	46.489	1.00	14.64
ATOM	1664	OE2	GLU	226	2.996	42.030	46.998	1.00	14.45
ATOM	1665	C	GLU	226	3.148	40.519	42.301	1.00	13.72
ATOM	1666	O	GLU	226	4.182	40.960	41.793	1.00	13.11
ATOM	1667	N	THR	227	2.942	39.229	42.507	1.00	13.56
ATOM	1668	CA	THR	227	3.917	38.254	42.081	1.00	15.89
ATOM	1669	CB	THR	227	3.453	36.823	42.441	1.00	17.08
ATOM	1670	OG1	THR	227	3.265	36.717	43.862	1.00	18.12

ATOM	1671	CG2	THR	227	4.484	35.811	42.021	1.00	14.04
ATOM	1672	C	THR	227	4.115	38.363	40.571	1.00	17.51
ATOM	1673	O	THR	227	5.251	38.412	40.088	1.00	18.18
ATOM	1674	N	LEU	228	3.002	38.444	39.844	1.00	16.95
ATOM	1675	CA	LEU	228	3.038	38.549	38.395	1.00	15.18
ATOM	1676	CB	LEU	228	1.614	38.471	37.839	1.00	10.17
ATOM	1677	CG	LEU	228	0.977	37.105	38.097	1.00	10.95
ATOM	1678	CD1	LEU	228	-0.505	37.099	37.758	1.00	12.57
ATOM	1679	CD2	LEU	228	1.715	36.038	37.326	1.00	13.06
ATOM	1680	C	LEU	228	3.736	39.811	37.919	1.00	14.14
ATOM	1681	O	LEU	228	4.728	39.747	37.193	1.00	16.77
ATOM	1682	N	ALA	229	3.243	40.944	38.385	1.00	13.81
ATOM	1683	CA	ALA	229	3.771	42.254	38.007	1.00	16.32
ATOM	1684	CB	ALA	229	2.993	43.362	38.717	1.00	14.36
ATOM	1685	C	ALA	229	5.248	42.428	38.284	1.00	18.27
ATOM	1686	O	ALA	229	5.981	43.020	37.480	1.00	17.39
ATOM	1687	N	ALA	230	5.676	41.951	39.446	1.00	20.29
ATOM	1688	CA	ALA	230	7.067	42.054	39.870	1.00	19.53
ATOM	1689	CB	ALA	230	7.233	41.435	41.270	1.00	18.74
ATOM	1690	C	ALA	230	7.970	41.350	38.875	1.00	18.11
ATOM	1691	O	ALA	230	9.104	41.771	38.652	1.00	18.42
ATOM	1692	N	ASN	231	7.459	40.282	38.275	1.00	17.32
ATOM	1693	CA	ASN	231	8.236	39.526	37.311	1.00	18.08
ATOM	1694	CB	ASN	231	8.042	38.034	37.559	1.00	15.97
ATOM	1695	CG	ASN	231	8.638	37.612	38.867	1.00	15.67
ATOM	1696	OD1	ASN	231	7.920	37.198	39.780	1.00	16.73
ATOM	1697	ND2	ASN	231	9.938	37.844	39.029	1.00	11.90
ATOM	1698	C	ASN	231	7.951	39.901	35.858	1.00	18.48
ATOM	1699	O	ASN	231	8.394	39.215	34.931	1.00	17.31
ATOM	1700	N	ASN	232	7.176	40.970	35.687	1.00	19.57
ATOM	1701	CA	ASN	232	6.799	41.518	34.382	1.00	19.37
ATOM	1702	CB	ASN	232	8.051	42.041	33.642	1.00	18.55
ATOM	1703	CG	ASN	232	7.758	43.252	32.761	1.00	18.76
ATOM	1704	OD1	ASN	232	6.679	43.834	32.820	1.00	20.84
ATOM	1705	ND2	ASN	232	8.729	43.642	31.947	1.00	15.84
ATOM	1706	C	ASN	232	6.042	40.505	33.531	1.00	17.15
ATOM	1707	O	ASN	232	6.088	40.568	32.302	1.00	18.38
ATOM	1708	N	LEU	233	5.303	39.621	34.194	1.00	17.58
ATOM	1709	CA	LEU	233	4.532	38.566	33.537	1.00	18.49
ATOM	1710	CB	LEU	233	4.909	37.201	34.138	1.00	20.74
ATOM	1711	CG	LEU	233	6.354	36.688	33.978	1.00	24.04
ATOM	1712	CD1	LEU	233	6.607	35.494	34.892	1.00	22.21

ATOM	1713	CD2	LEU	233	6.629	36.309	32.525	1.00	19.31
ATOM	1714	C	LEU	233	3.001	38.751	33.608	1.00	20.44
ATOM	1715	O	LEU	233	2.461	39.351	34.550	1.00	18.79
ATOM	1716	N	ASP	234	2.306	38.237	32.592	1.00	20.39
ATOM	1717	CA	ASP	234	0.846	38.309	32.522	1.00	18.40
ATOM	1718	CB	ASP	234	0.383	38.436	31.065	1.00	18.25
ATOM	1719	CG	ASP	234	-1.088	38.820	30.945	1.00	20.12
ATOM	1720	OD1	ASP	234	-1.944	37.952	30.644	1.00	21.50
ATOM	1721	OD2	ASP	234	-1.392	40.004	31.157	1.00	24.09
ATOM	1722	C	ASP	234	0.249	37.038	33.130	1.00	18.91
ATOM	1723	O	ASP	234	0.851	35.967	33.056	1.00	15.92
ATOM	1724	N	ARG	235	-0.955	37.163	33.690	1.00	19.16
ATOM	1725	CA	ARG	235	-1.676	36.048	34.302	1.00	22.18
ATOM	1726	CB	ARG	235	-3.074	36.493	34.757	1.00	18.82
ATOM	1727	CG	ARG	235	-3.831	37.289	33.692	1.00	25.84
ATOM	1728	CD	ARG	235	-5.350	37.113	33.696	1.00	26.09
ATOM	1729	NE	ARG	235	-6.026	38.029	34.599	1.00	30.65
ATOM	1730	CZ	ARG	235	-7.274	38.469	34.434	1.00	30.11
ATOM	1731	NH1	ARG	235	-7.803	39.293	35.326	1.00	30.52
ATOM	1732	NH2	ARG	235	-7.984	38.136	33.362	1.00	27.90
ATOM	1733	C	ARG	235	-1.813	34.891	33.325	1.00	24.32
ATOM	1734	O	ARG	235	-1.842	33.730	33.731	1.00	26.85
ATOM	1735	N	SER	236	-1.856	35.216	32.033	1.00	25.25
ATOM	1736	CA	SER	236	-2.007	34.214	30.985	1.00	24.71
ATOM	1737	CB	SER	236	-2.333	34.898	29.644	1.00	26.01
ATOM	1738	OG	SER	236	-1.218	35.629	29.153	1.00	29.17
ATOM	1739	C	SER	236	-0.792	33.302	30.821	1.00	23.70
ATOM	1740	O	SER	236	-0.866	32.265	30.170	1.00	25.14
ATOM	1741	N	GLN	237	0.341	33.704	31.374	1.00	22.24
ATOM	1742	CA	GLN	237	1.529	32.889	31.245	1.00	20.03
ATOM	1743	CB	GLN	237	2.756	33.770	31.290	1.00	21.01
ATOM	1744	CG	GLN	237	2.725	34.779	30.176	1.00	26.63
ATOM	1745	CD	GLN	237	3.986	35.595	30.096	1.00	31.94
ATOM	1746	OE1	GLN	237	4.988	35.169	29.511	1.00	37.61
ATOM	1747	NE2	GLN	237	3.937	36.793	30.651	1.00	30.44
ATOM	1748	C	GLN	237	1.616	31.783	32.271	1.00	19.73
ATOM	1749	O	GLN	237	2.455	30.890	32.149	1.00	20.92
ATOM	1750	N	LEU	238	0.724	31.813	33.255	1.00	16.91
ATOM	1751	CA	LEU	238	0.716	30.803	34.295	1.00	18.57
ATOM	1752	CB	LEU	238	-0.158	31.253	35.456	1.00	17.60
ATOM	1753	CG	LEU	238	0.405	32.309	36.394	1.00	18.39
ATOM	1754	CD1	LEU	238	-0.628	32.551	37.521	1.00	18.62

ATOM	1755	CD2	LEU	238	1.752	31.817	36.959	1.00	15.50
ATOM	1756	C	LEU	238	0.156	29.502	33.770	1.00	18.76
ATOM	1757	O	LEU	238	-0.888	29.483	33.143	1.00	21.55
ATOM	1758	N	ASP	239	0.825	28.408	34.101	1.00	18.95
ATOM	1759	CA	ASP	239	0.411	27.093	33.681	1.00	15.92
ATOM	1760	CB	ASP	239	1.648	26.272	33.334	1.00	14.69
ATOM	1761	CG	ASP	239	2.272	26.705	32.021	1.00	16.16
ATOM	1762	OD1	ASP	239	3.478	27.010	31.989	1.00	15.76
ATOM	1763	OD2	ASP	239	1.518	26.767	31.029	1.00	19.70
ATOM	1764	C	ASP	239	-0.375	26.404	34.769	1.00	17.51
ATOM	1765	O	ASP	239	-1.353	25.710	34.493	1.00	18.58
ATOM	1766	N	TRP	240	0.045	26.631	36.006	1.00	16.60
ATOM	1767	CA	TRP	240	-0.591	26.018	37.160	1.00	17.97
ATOM	1768	CB	TRP	240	0.182	24.772	37.581	1.00	16.28
ATOM	1769	CG	TRP	240	0.103	23.654	36.634	1.00	16.88
ATOM	1770	CD2	TRP	240	-1.008	22.773	36.453	1.00	16.96
ATOM	1771	CE2	TRP	240	-0.673	21.892	35.415	1.00	18.64
ATOM	1772	CE3	TRP	240	-2.263	22.654	37.067	1.00	16.89
ATOM	1773	CD1	TRP	240	1.048	23.275	35.735	1.00	14.91
ATOM	1774	NE1	TRP	240	0.593	22.215	34.998	1.00	19.08
ATOM	1775	CZ2	TRP	240	-1.552	20.906	34.959	1.00	18.53
ATOM	1776	CZ3	TRP	240	-3.129	21.673	36.612	1.00	17.25
ATOM	1777	CH2	TRP	240	-2.768	20.817	35.570	1.00	17.66
ATOM	1778	C	TRP	240	-0.641	26.913	38.384	1.00	16.77
ATOM	1779	O	TRP	240	0.261	27.721	38.611	1.00	17.42
ATOM	1780	N	LEU	241	-1.705	26.751	39.160	1.00	17.08
ATOM	1781	CA	LEU	241	-1.869	27.446	40.418	1.00	17.45
ATOM	1782	CB	LEU	241	-3.205	28.205	40.460	1.00	18.07
ATOM	1783	CG	LEU	241	-3.558	28.866	41.802	1.00	19.03
ATOM	1784	CD1	LEU	241	-2.587	30.002	42.060	1.00	17.61
ATOM	1785	CD2	LEU	241	-4.993	29.368	41.818	1.00	15.71
ATOM	1786	C	LEU	241	-1.896	26.297	41.445	1.00	18.09
ATOM	1787	O	LEU	241	-2.631	25.318	41.274	1.00	16.21
ATOM	1788	N	VAL	242	-1.036	26.374	42.455	1.00	19.55
ATOM	1789	CA	VAL	242	-0.999	25.374	43.527	1.00	17.24
ATOM	1790	CB	VAL	242	0.402	24.676	43.611	1.00	15.94
ATOM	1791	CG1	VAL	242	0.469	23.722	44.781	1.00	12.39
ATOM	1792	CG2	VAL	242	0.700	23.932	42.298	1.00	13.16
ATOM	1793	C	VAL	242	-1.272	26.211	44.786	1.00	17.87
ATOM	1794	O	VAL	242	-0.339	26.755	45.391	1.00	16.60
ATOM	1795	N	PRO	243	-2.561	26.433	45.111	1.00	15.66
ATOM	1796	CD	PRO	243	-3.758	25.987	44.370	1.00	17.35

ATOM	1797	CA	PRO	243	-2.950	27.223	46.286	1.00	15.73
ATOM	1798	CB	PRO	243	-4.344	27.691	45.909	1.00	13.68
ATOM	1799	CG	PRO	243	-4.920	26.475	45.265	1.00	14.02
ATOM	1800	C	PRO	243	-3.018	26.450	47.592	1.00	17.43
ATOM	1801	O	PRO	243	-3.053	25.210	47.616	1.00	18.91
ATOM	1802	N	HIS	244	-3.012	27.197	48.689	1.00	18.90
ATOM	1803	CA	HIS	244	-3.165	26.587	49.988	1.00	17.18
ATOM	1804	CB	HIS	244	-2.914	27.594	51.111	1.00	17.15
ATOM	1805	CG	HIS	244	-3.178	27.035	52.465	1.00	17.42
ATOM	1806	CD2	HIS	244	-2.579	26.015	53.138	1.00	14.15
ATOM	1807	ND1	HIS	244	-4.285	27.385	53.212	1.00	16.36
ATOM	1808	CE1	HIS	244	-4.370	26.596	54.264	1.00	16.12
ATOM	1809	NE2	HIS	244	-3.354	25.760	54.244	1.00	19.14
ATOM	1810	C	HIS	244	-4.631	26.151	49.971	1.00	15.41
ATOM	1811	O	HIS	244	-5.503	26.936	49.591	1.00	14.10
ATOM	1812	N	GLN	245	-4.902	24.917	50.367	1.00	13.04
ATOM	1813	CA	GLN	245	-6.259	24.378	50.353	1.00	14.92
ATOM	1814	CB	GLN	245	-6.168	22.856	50.228	1.00	12.01
ATOM	1815	CG	GLN	245	-5.207	22.355	49.121	1.00	13.37
ATOM	1816	CD	GLN	245	-5.735	22.578	47.696	1.00	13.01
ATOM	1817	OE1	GLN	245	-5.026	23.081	46.841	1.00	13.08
ATOM	1818	NE2	GLN	245	-6.978	22.176	47.447	1.00	10.51
ATOM	1819	C	GLN	245	-7.131	24.769	51.565	1.00	16.53
ATOM	1820	O	GLN	245	-7.545	23.913	52.331	1.00	18.63
ATOM	1821	N	ALA	246	-7.440	26.051	51.721	1.00	19.76
ATOM	1822	CA	ALA	246	-8.240	26.512	52.864	1.00	20.02
ATOM	1823	CB	ALA	246	-8.166	28.017	52.975	1.00	22.28
ATOM	1824	C	ALA	246	-9.687	26.075	52.772	1.00	23.08
ATOM	1825	O	ALA	246	-10.281	25.620	53.759	1.00	23.37
ATOM	1826	N	ASN	247	-10.280	26.349	51.615	1.00	21.20
ATOM	1827	CA	ASN	247	-11.645	25.983	51.311	1.00	22.48
ATOM	1828	CB	ASN	247	-12.653	26.733	52.190	1.00	24.84
ATOM	1829	CG	ASN	247	-12.700	28.195	51.888	1.00	26.54
ATOM	1830	OD1	ASN	247	-13.343	28.618	50.942	1.00	32.63
ATOM	1831	ND2	ASN	247	-12.016	28.987	52.686	1.00	31.62
ATOM	1832	C	ASN	247	-11.824	26.292	49.825	1.00	23.43
ATOM	1833	O	ASN	247	-11.076	27.097	49.249	1.00	23.61
ATOM	1834	N	LEU	248	-12.777	25.622	49.194	1.00	23.38
ATOM	1835	CA	LEU	248	-13.001	25.788	47.760	1.00	24.94
ATOM	1836	CB	LEU	248	-14.002	24.746	47.262	1.00	22.38
ATOM	1837	CG	LEU	248	-14.132	24.662	45.740	1.00	21.97
ATOM	1838	CD1	LEU	248	-12.776	24.366	45.128	1.00	19.87

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ATOM	1839	CD2	LEU	248	-15.140	23.585	45.365	1.00	24.76
ATOM	1840	C	LEU	248	-13.393	27.196	47.279	1.00	26.28
ATOM	1841	O	LEU	248	-13.030	27.588	46.160	1.00	23.04
ATOM	1842	N	ARG	249	-14.126	27.939	48.119	1.00	27.79
ATOM	1843	CA	ARG	249	-14.566	29.305	47.811	1.00	28.98
ATOM	1844	CB	ARG	249	-15.376	29.912	48.966	1.00	34.43
ATOM	1845	CG	ARG	249	-16.577	29.118	49.433	1.00	45.16
ATOM	1846	CD	ARG	249	-17.307	29.859	50.557	1.00	52.72
ATOM	1847	NE	ARG	249	-18.235	30.862	50.037	1.00	60.09
ATOM	1848	CZ	ARG	249	-18.607	31.976	50.675	1.00	62.73
ATOM	1849	NH1	ARG	249	-19.469	32.803	50.096	1.00	64.82
ATOM	1850	NH2	ARG	249	-18.112	32.290	51.867	1.00	60.24
ATOM	1851	C	ARG	249	-13.369	30.208	47.562	1.00	24.80
ATOM	1852	O	ARG	249	-13.358	31.007	46.629	1.00	24.09
ATOM	1853	N	ILE	250	-12.393	30.135	48.453	1.00	24.48
ATOM	1854	CA	ILE	250	-11.201	30.951	48.306	1.00	24.93
ATOM	1855	CB	ILE	250	-10.365	30.965	49.621	1.00	26.91
ATOM	1856	CG2	ILE	250	-8.880	31.128	49.350	1.00	22.69
ATOM	1857	CG1	ILE	250	-10.902	32.091	50.506	1.00	32.57
ATOM	1858	CD1	ILE	250	-10.216	32.245	51.828	1.00	38.42
ATOM	1859	C	ILE	250	-10.391	30.533	47.076	1.00	23.12
ATOM	1860	O	ILE	250	-10.024	31.380	46.265	1.00	20.24
ATOM	1861	N	ILE	251	-10.173	29.229	46.916	1.00	20.34
ATOM	1862	CA	ILE	251	-9.424	28.704	45.771	1.00	22.25
ATOM	1863	CB	ILE	251	-9.392	27.155	45.797	1.00	21.13
ATOM	1864	CG2	ILE	251	-9.009	26.600	44.444	1.00	26.35
ATOM	1865	CG1	ILE	251	-8.432	26.677	46.881	1.00	21.38
ATOM	1866	CD1	ILE	251	-8.503	25.189	47.144	1.00	23.85
ATOM	1867	C	ILE	251	-10.065	29.172	44.456	1.00	22.50
ATOM	1868	O	ILE	251	-9.388	29.680	43.549	1.00	23.57
ATOM	1869	N	SER	252	-11.383	29.040	44.379	1.00	21.19
ATOM	1870	CA	SER	252	-12.108	29.435	43.191	1.00	22.43
ATOM	1871	CB	SER	252	-13.555	28.962	43.288	1.00	22.22
ATOM	1872	OG	SER	252	-13.576	27.549	43.422	1.00	26.67
ATOM	1873	C	SER	252	-12.027	30.930	42.970	1.00	23.16
ATOM	1874	O	SER	252	-11.739	31.370	41.865	1.00	26.76
ATOM	1875	N	ALA	253	-12.150	31.703	44.040	1.00	22.03
ATOM	1876	CA	ALA	253	-12.110	33.157	43.943	1.00	22.46
ATOM	1877	CB	ALA	253	-12.370	33.785	45.305	1.00	23.85
ATOM	1878	C	ALA	253	-10.786	33.648	43.384	1.00	22.43
ATOM	1879	O	ALA	253	-10.773	34.547	42.558	1.00	24.79
ATOM	1880	N	THR	254	-9.680	33.063	43.837	1.00	22.50

ATOM	1881	CA	THR	254	-8.350	33.447	43.371	1.00	22.14
ATOM	1882	CB	THR	254	-7.234	32.753	44.180	1.00	23.00
ATOM	1883	OG1	THR	254	-7.306	33.148	45.557	1.00	21.11
ATOM	1884	CG2	THR	254	-5.857	33.107	43.615	1.00	19.45
ATOM	1885	C	THR	254	-8.137	33.104	41.893	1.00	23.25
ATOM	1886	O	THR	254	-7.600	33.909	41.142	1.00	23.07
ATOM	1887	N	ALA	255	-8.523	31.901	41.481	1.00	23.73
ATOM	1888	CA	ALA	255	-8.362	31.513	40.081	1.00	26.31
ATOM	1889	CB	ALA	255	-8.761	30.070	39.875	1.00	23.16
ATOM	1890	C	ALA	255	-9.185	32.430	39.167	1.00	27.27
ATOM	1891	O	ALA	255	-8.711	32.862	38.114	1.00	24.97
ATOM	1892	N	LYS	256	-10.387	32.772	39.618	1.00	29.51
ATOM	1893	CA	LYS	256	-11.288	33.649	38.876	1.00	34.35
ATOM	1894	CB	LYS	256	-12.615	33.752	39.642	1.00	38.98
ATOM	1895	CG	LYS	256	-13.351	35.073	39.569	1.00	47.70
ATOM	1896	CD	LYS	256	-14.443	35.074	38.523	1.00	54.33
ATOM	1897	CE	LYS	256	-15.426	36.231	38.766	1.00	61.73
ATOM	1898	NZ	LYS	256	-16.507	35.944	39.778	1.00	64.65
ATOM	1899	C	LYS	256	-10.625	35.022	38.674	1.00	34.06
ATOM	1900	O	LYS	256	-10.680	35.594	37.586	1.00	34.31
ATOM	1901	N	LYS	257	-9.966	35.519	39.716	1.00	33.91
ATOM	1902	CA	LYS	257	-9.269	36.804	39.668	1.00	34.38
ATOM	1903	CB	LYS	257	-8.731	37.179	41.059	1.00	38.65
ATOM	1904	CG	LYS	257	-9.786	37.403	42.158	1.00	45.96
ATOM	1905	CD	LYS	257	-9.087	37.585	43.523	1.00	47.65
ATOM	1906	CE	LYS	257	-9.918	37.118	44.725	1.00	47.24
ATOM	1907	NZ	LYS	257	-9.030	36.454	45.762	1.00	43.39
ATOM	1908	C	LYS	257	-8.087	36.723	38.686	1.00	31.85
ATOM	1909	O	LYS	257	-7.639	37.739	38.138	1.00	30.36
ATOM	1910	N	LEU	258	-7.537	35.520	38.535	1.00	28.78
ATOM	1911	CA	LEU	258	-6.424	35.274	37.626	1.00	28.52
ATOM	1912	CB	LEU	258	-5.570	34.114	38.148	1.00	25.65
ATOM	1913	CG	LEU	258	-4.525	34.464	39.209	1.00	28.67
ATOM	1914	CD1	LEU	258	-3.995	33.228	39.927	1.00	23.03
ATOM	1915	CD2	LEU	258	-3.395	35.246	38.537	1.00	28.28
ATOM	1916	C	LEU	258	-6.925	34.948	36.208	1.00	29.93
ATOM	1917	O	LEU	258	-6.129	34.800	35.271	1.00	29.18
ATOM	1918	N	GLY	259	-8.245	34.851	36.059	1.00	30.36
ATOM	1919	CA	GLY	259	-8.835	34.510	34.781	1.00	29.49
ATOM	1920	C	GLY	259	-8.433	33.083	34.421	1.00	29.96
ATOM	1921	O	GLY	259	-8.353	32.721	33.240	1.00	31.71
ATOM	1922	N	MET	260	-8.168	32.274	35.450	1.00	28.33

ATOM	1923	CA	MET	260	-7.743	30.891	35.285	1.00	26.83
ATOM	1924	CB	MET	260	-6.632	30.534	36.277	1.00	26.00
ATOM	1925	CG	MET	260	-5.281	31.094	35.888	1.00	32.76
ATOM	1926	SD	MET	260	-3.994	30.758	37.081	1.00	37.24
ATOM	1927	CE	MET	260	-3.608	29.065	36.687	1.00	31.60
ATOM	1928	C	MET	260	-8.830	29.855	35.406	1.00	26.76
ATOM	1929	O	MET	260	-9.674	29.906	36.290	1.00	25.84
ATOM	1930	N	SER	261	-8.764	28.876	34.518	1.00	26.19
ATOM	1931	CA	SER	261	-9.713	27.791	34.521	1.00	25.54
ATOM	1932	CB	SER	261	-9.618	26.991	33.223	1.00	22.53
ATOM	1933	OG	SER	261	-10.219	25.720	33.405	1.00	22.21
ATOM	1934	C	SER	261	-9.272	26.896	35.642	1.00	23.16
ATOM	1935	O	SER	261	-8.079	26.739	35.864	1.00	23.19
ATOM	1936	N	MET	262	-10.229	26.225	36.270	1.00	24.26
ATOM	1937	CA	MET	262	-9.926	25.316	37.371	1.00	26.04
ATOM	1938	CB	MET	262	-11.215	24.829	38.033	1.00	26.83
ATOM	1939	CG	MET	262	-11.839	25.854	38.978	1.00	28.36
ATOM	1940	SD	MET	262	-10.779	26.176	40.404	1.00	27.37
ATOM	1941	CE	MET	262	-10.914	27.851	40.467	1.00	30.04
ATOM	1942	C	MET	262	-9.094	24.137	36.857	1.00	25.58
ATOM	1943	O	MET	262	-8.502	23.404	37.648	1.00	22.96
ATOM	1944	N	ASP	263	-9.051	23.966	35.532	1.00	28.31
ATOM	1945	CA	ASP	263	-8.246	22.907	34.922	1.00	27.91
ATOM	1946	CB	ASP	263	-8.566	22.749	33.444	1.00	29.63
ATOM	1947	CG	ASP	263	-9.987	22.293	33.205	1.00	35.08
ATOM	1948	OD1	ASP	263	-10.522	21.534	34.043	1.00	38.21
ATOM	1949	OD2	ASP	263	-10.568	22.698	32.176	1.00	38.36
ATOM	1950	C	ASP	263	-6.774	23.225	35.098	1.00	25.30
ATOM	1951	O	ASP	263	-5.936	22.342	34.999	1.00	26.67
ATOM	1952	N	ASN	264	-6.468	24.491	35.350	1.00	21.14
ATOM	1953	CA	ASN	264	-5.089	24.889	35.576	1.00	23.09
ATOM	1954	CB	ASN	264	-4.781	26.225	34.904	1.00	23.54
ATOM	1955	CG	ASN	264	-4.911	26.167	33.419	1.00	27.49
ATOM	1956	OD1	ASN	264	-5.945	26.543	32.863	1.00	26.00
ATOM	1957	ND2	ASN	264	-3.869	25.692	32.754	1.00	27.44
ATOM	1958	C	ASN	264	-4.830	25.029	37.077	1.00	21.98
ATOM	1959	O	ASN	264	-3.817	25.606	37.484	1.00	21.61
ATOM	1960	N	VAL	265	-5.774	24.566	37.892	1.00	20.41
ATOM	1961	CA	VAL	265	-5.629	24.656	39.339	1.00	19.00
ATOM	1962	CB	VAL	265	-6.775	25.474	39.980	1.00	21.23
ATOM	1963	CG1	VAL	265	-6.561	25.604	41.502	1.00	14.83
ATOM	1964	CG2	VAL	265	-6.853	26.849	39.353	1.00	19.91

ATOM	1965	C	VAL	265	-5.573	23.279	39.996	1.00	17.79
ATOM	1966	O	VAL	265	-6.354	22.381	39.654	1.00	16.72
ATOM	1967	N	VAL	266	-4.605	23.100	40.896	1.00	17.35
ATOM	1968	CA	VAL	266	-4.448	21.849	41.632	1.00	18.23
ATOM	1969	CB	VAL	266	-2.989	21.580	41.996	1.00	17.03
ATOM	1970	CG1	VAL	266	-2.888	20.268	42.803	1.00	15.84
ATOM	1971	CG2	VAL	266	-2.143	21.507	40.711	1.00	15.64
ATOM	1972	C	VAL	266	-5.296	21.951	42.911	1.00	20.08
ATOM	1973	O	VAL	266	-5.146	22.883	43.710	1.00	21.61
ATOM	1974	N	VAL	267	-6.229	21.016	43.056	1.00	19.50
ATOM	1975	CA	VAL	267	-7.140	20.986	44.186	1.00	20.38
ATOM	1976	CB	VAL	267	-8.582	21.271	43.715	1.00	21.06
ATOM	1977	CG1	VAL	267	-9.552	21.130	44.858	1.00	20.29
ATOM	1978	CG2	VAL	267	-8.670	22.658	43.121	1.00	19.81
ATOM	1979	C	VAL	267	-7.069	19.615	44.834	1.00	19.97
ATOM	1980	O	VAL	267	-7.253	18.600	44.166	1.00	19.73
ATOM	1981	N	THR	268	-6.751	19.587	46.126	1.00	18.79
ATOM	1982	CA	THR	268	-6.653	18.325	46.869	1.00	19.12
ATOM	1983	CB	THR	268	-5.240	18.128	47.386	1.00	17.86
ATOM	1984	OG1	THR	268	-4.900	19.264	48.186	1.00	16.31
ATOM	1985	CG2	THR	268	-4.233	17.980	46.242	1.00	16.79
ATOM	1986	C	THR	268	-7.551	18.331	48.120	1.00	19.66
ATOM	1987	O	THR	268	-7.761	17.298	48.767	1.00	19.47
ATOM	1988	N	LEU	269	-8.094	19.503	48.432	1.00	20.67
ATOM	1989	CA	LEU	269	-8.906	19.715	49.622	1.00	20.50
ATOM	1990	CB	LEU	269	-9.274	21.197	49.723	1.00	23.37
ATOM	1991	CG	LEU	269	-10.629	21.846	49.550	1.00	28.80
ATOM	1992	CD1	LEU	269	-10.365	23.325	49.556	1.00	30.54
ATOM	1993	CD2	LEU	269	-11.325	21.438	48.267	1.00	31.56
ATOM	1994	C	LEU	269	-10.088	18.790	49.859	1.00	18.95
ATOM	1995	O	LEU	269	-10.444	18.504	51.000	1.00	16.41
ATOM	1996	N	ASP	270	-10.654	18.253	48.789	1.00	17.90
ATOM	1997	CA	ASP	270	-11.779	17.344	48.935	1.00	19.68
ATOM	1998	CB	ASP	270	-12.433	17.090	47.565	1.00	24.06
ATOM	1999	CG	ASP	270	-11.438	16.613	46.512	1.00	24.36
ATOM	2000	OD1	ASP	270	-11.630	15.495	46.001	1.00	27.37
ATOM	2001	OD2	ASP	270	-10.461	17.338	46.213	1.00	24.37
ATOM	2002	C	ASP	270	-11.332	16.038	49.585	1.00	18.82
ATOM	2003	O	ASP	270	-12.136	15.349	50.226	1.00	19.89
ATOM	2004	N	ARG	271	-10.033	15.747	49.474	1.00	18.05
ATOM	2005	CA	ARG	271	-9.418	14.537	50.011	1.00	16.64
ATOM	2006	CB	ARG	271	-8.606	13.843	48.907	1.00	16.39

ATOM	2007	CG	ARG	271	-9.432	13.012	47.918	1.00	18.48
ATOM	2008	CD	ARG	271	-8.561	12.418	46.801	1.00	16.49
ATOM	2009	NE	ARG	271	-8.118	13.477	45.910	1.00	14.80
ATOM	2010	CZ	ARG	271	-6.862	13.860	45.745	1.00	12.57
ATOM	2011	NH1	ARG	271	-6.613	14.856	44.923	1.00	19.73
ATOM	2012	NH2	ARG	271	-5.863	13.262	46.373	1.00	9.46
ATOM	2013	C	ARG	271	-8.481	14.795	51.193	1.00	16.63
ATOM	2014	O	ARG	271	-8.232	13.899	51.995	1.00	18.24
ATOM	2015	N	HIS	272	-7.957	16.012	51.294	1.00	18.38
ATOM	2016	CA	HIS	272	-6.995	16.375	52.347	1.00	19.21
ATOM	2017	CB	HIS	272	-5.732	17.032	51.726	1.00	18.03
ATOM	2018	CG	HIS	272	-4.931	16.132	50.824	1.00	19.51
ATOM	2019	CD2	HIS	272	-5.191	14.911	50.312	1.00	16.87
ATOM	2020	ND1	HIS	272	-3.680	16.484	50.354	1.00	16.03
ATOM	2021	CE1	HIS	272	-3.208	15.513	49.594	1.00	14.66
ATOM	2022	NE2	HIS	272	-4.111	14.547	49.555	1.00	14.54
ATOM	2023	C	HIS	272	-7.476	17.360	53.414	1.00	17.41
ATOM	2024	O	HIS	272	-6.817	17.508	54.453	1.00	17.75
ATOM	2025	N	GLY	273	-8.569	18.064	53.150	1.00	14.55
ATOM	2026	CA	GLY	273	-9.003	19.082	54.085	1.00	13.92
ATOM	2027	C	GLY	273	-7.914	20.153	54.078	1.00	16.78
ATOM	2028	O	GLY	273	-7.096	20.216	53.155	1.00	15.59
ATOM	2029	N	ASN	274	-7.884	20.993	55.104	1.00	16.04
ATOM	2030	CA	ASN	274	-6.887	22.042	55.213	1.00	16.17
ATOM	2031	CB	ASN	274	-7.524	23.307	55.790	1.00	16.71
ATOM	2032	CG	ASN	274	-6.524	24.433	56.031	1.00	15.26
ATOM	2033	OD1	ASN	274	-5.290	24.259	55.970	1.00	14.69
ATOM	2034	ND2	ASN	274	-7.058	25.607	56.319	1.00	17.12
ATOM	2035	C	ASN	274	-5.800	21.538	56.144	1.00	18.93
ATOM	2036	O	ASN	274	-6.016	21.456	57.366	1.00	18.02
ATOM	2037	N	THR	275	-4.644	21.203	55.566	1.00	16.60
ATOM	2038	CA	THR	275	-3.515	20.681	56.326	1.00	15.06
ATOM	2039	CB	THR	275	-2.818	19.496	55.581	1.00	16.15
ATOM	2040	OG1	THR	275	-2.472	19.897	54.250	1.00	16.57
ATOM	2041	CG2	THR	275	-3.738	18.260	55.524	1.00	12.41
ATOM	2042	C	THR	275	-2.476	21.741	56.721	1.00	14.96
ATOM	2043	O	THR	275	-1.314	21.414	56.962	1.00	16.75
ATOM	2044	N	SER	276	-2.883	23.010	56.745	1.00	14.34
ATOM	2045	CA	SER	276	-1.996	24.086	57.152	1.00	14.51
ATOM	2046	CB	SER	276	-1.772	23.993	58.686	1.00	16.80
ATOM	2047	OG	SER	276	-1.051	25.104	59.218	1.00	17.07
ATOM	2048	C	SER	276	-0.675	24.141	56.352	1.00	13.90

ATOM	2049	O	SER	276	-0.719	24.199	55.132	1.00	15.64
ATOM	2050	N	ALA	277	0.481	24.167	57.001	1.00	11.49
ATOM	2051	CA	ALA	277	1.739	24.239	56.262	1.00	12.97
ATOM	2052	CB	ALA	277	2.914	24.399	57.222	1.00	12.78
ATOM	2053	C	ALA	277	1.993	23.079	55.288	1.00	13.00
ATOM	2054	O	ALA	277	2.821	23.208	54.386	1.00	11.48
ATOM	2055	N	ALA	278	1.291	21.960	55.473	1.00	14.65
ATOM	2056	CA	ALA	278	1.450	20.781	54.616	1.00	13.79
ATOM	2057	CB	ALA	278	0.990	19.553	55.361	1.00	10.67
ATOM	2058	C	ALA	278	0.689	20.862	53.296	1.00	14.68
ATOM	2059	O	ALA	278	0.992	20.146	52.346	1.00	13.56
ATOM	2060	N	SER	279	-0.311	21.728	53.260	1.00	15.94
ATOM	2061	CA	SER	279	-1.196	21.887	52.115	1.00	16.13
ATOM	2062	CB	SER	279	-2.205	22.992	52.394	1.00	13.39
ATOM	2063	OG	SER	279	-3.384	22.869	51.633	1.00	15.83
ATOM	2064	C	SER	279	-0.503	22.121	50.788	1.00	14.57
ATOM	2065	O	SER	279	-0.591	21.258	49.935	1.00	17.51
ATOM	2066	N	VAL	280	0.183	23.249	50.617	1.00	15.03
ATOM	2067	CA	VAL	280	0.880	23.552	49.360	1.00	16.15
ATOM	2068	CB	VAL	280	1.585	24.947	49.415	1.00	15.98
ATOM	2069	CG1	VAL	280	2.449	25.175	48.163	1.00	13.75
ATOM	2070	CG2	VAL	280	0.541	26.036	49.550	1.00	14.73
ATOM	2071	C	VAL	280	1.859	22.452	48.928	1.00	16.44
ATOM	2072	O	VAL	280	1.734	21.927	47.823	1.00	17.37
ATOM	2073	N	PRO	281	2.819	22.054	49.801	1.00	17.41
ATOM	2074	CD	PRO	281	3.166	22.559	51.148	1.00	15.53
ATOM	2075	CA	PRO	281	3.751	20.996	49.378	1.00	15.73
ATOM	2076	CB	PRO	281	4.725	20.885	50.555	1.00	16.10
ATOM	2077	CG	PRO	281	3.940	21.406	51.740	1.00	15.80
ATOM	2078	C	PRO	281	3.081	19.652	49.022	1.00	15.33
ATOM	2079	O	PRO	281	3.550	18.953	48.130	1.00	14.67
ATOM	2080	N	CYS	282	1.980	19.300	49.686	1.00	13.06
ATOM	2081	CA	CYS	282	1.290	18.060	49.358	1.00	13.72
ATOM	2082	CB	CYS	282	0.241	17.684	50.414	1.00	13.17
ATOM	2083	SG	CYS	282	0.928	17.063	51.979	1.00	16.48
ATOM	2084	C	CYS	282	0.601	18.247	48.011	1.00	14.46
ATOM	2085	O	CYS	282	0.615	17.349	47.180	1.00	13.55
ATOM	2086	N	ALA	283	0.034	19.428	47.777	1.00	13.44
ATOM	2087	CA	ALA	283	-0.648	19.690	46.516	1.00	16.12
ATOM	2088	CB	ALA	283	-1.383	21.021	46.580	1.00	14.89
ATOM	2089	C	ALA	283	0.368	19.683	45.368	1.00	16.45
ATOM	2090	O	ALA	283	0.145	19.063	44.325	1.00	15.64

ATOM	2091	N	LEU	284	1.497	20.347	45.593	1.00	16.41
ATOM	2092	CA	LEU	284	2.570	20.421	44.604	1.00	17.88
ATOM	2093	CB	LEU	284	3.712	21.298	45.140	1.00	15.78
ATOM	2094	CG	LEU	284	4.964	21.438	44.270	1.00	18.48
ATOM	2095	CD1	LEU	284	4.632	22.258	43.015	1.00	17.47
ATOM	2096	CD2	LEU	284	6.077	22.109	45.066	1.00	15.80
ATOM	2097	C	LEU	284	3.087	19.001	44.285	1.00	19.38
ATOM	2098	O	LEU	284	3.198	18.612	43.121	1.00	18.01
ATOM	2099	N	ASP	285	3.365	18.222	45.330	1.00	18.65
ATOM	2100	CA	ASP	285	3.859	16.862	45.169	1.00	18.07
ATOM	2101	CB	ASP	285	4.041	16.200	46.536	1.00	16.14
ATOM	2102	CG	ASP	285	4.624	14.795	46.449	1.00	17.96
ATOM	2103	OD1	ASP	285	3.966	13.852	46.944	1.00	18.78
ATOM	2104	OD2	ASP	285	5.751	14.627	45.926	1.00	18.28
ATOM	2105	C	ASP	285	2.901	16.041	44.333	1.00	17.41
ATOM	2106	O	ASP	285	3.329	15.333	43.445	1.00	18.44
ATOM	2107	N	GLU	286	1.608	16.131	44.626	1.00	18.18
ATOM	2108	CA	GLU	286	0.601	15.381	43.889	1.00	17.59
ATOM	2109	CB	GLU	286	-0.789	15.620	44.472	1.00	13.81
ATOM	2110	CG	GLU	286	-1.840	14.781	43.795	1.00	17.48
ATOM	2111	CD	GLU	286	-3.215	14.944	44.383	1.00	18.98
ATOM	2112	OE1	GLU	286	-3.484	14.350	45.446	1.00	24.65
ATOM	2113	OE2	GLU	286	-4.042	15.649	43.783	1.00	18.02
ATOM	2114	C	GLU	286	0.587	15.696	42.396	1.00	15.52
ATOM	2115	O	GLU	286	0.487	14.796	41.571	1.00	16.03
ATOM	2116	N	ALA	287	0.675	16.979	42.064	1.00	18.44
ATOM	2117	CA	ALA	287	0.648	17.430	40.670	1.00	17.16
ATOM	2118	CB	ALA	287	0.318	18.933	40.602	1.00	17.08
ATOM	2119	C	ALA	287	1.942	17.102	39.914	1.00	17.04
ATOM	2120	O	ALA	287	1.927	16.861	38.703	1.00	16.27
ATOM	2121	N	VAL	288	3.057	17.067	40.629	1.00	14.82
ATOM	2122	CA	VAL	288	4.332	16.711	40.014	1.00	15.47
ATOM	2123	CB	VAL	288	5.542	17.090	40.934	1.00	14.61
ATOM	2124	CG1	VAL	288	6.783	16.302	40.532	1.00	9.91
ATOM	2125	CG2	VAL	288	5.813	18.592	40.870	1.00	12.00
ATOM	2126	C	VAL	288	4.334	15.199	39.781	1.00	16.91
ATOM	2127	O	VAL	288	4.726	14.704	38.715	1.00	18.66
ATOM	2128	N	ARG	289	3.836	14.463	40.763	1.00	15.43
ATOM	2129	CA	ARG	289	3.815	13.012	40.678	1.00	16.80
ATOM	2130	CB	ARG	289	3.723	12.396	42.078	1.00	14.68
ATOM	2131	CG	ARG	289	5.037	12.547	42.859	1.00	12.17
ATOM	2132	CD	ARG	289	4.997	11.836	44.202	1.00	14.05

ATOM	2133	NE	ARG	289	6.261	11.983	44.918	1.00	14.23
ATOM	2134	CZ	ARG	289	7.184	11.035	45.022	1.00	15.19
ATOM	2135	NH1	ARG	289	8.303	11.264	45.701	1.00	16.15
ATOM	2136	NH2	ARG	289	6.993	9.862	44.437	1.00	16.67
ATOM	2137	C	ARG	289	2.857	12.329	39.685	1.00	17.53
ATOM	2138	O	ARG	289	3.154	11.210	39.254	1.00	16.57
ATOM	2139	N	ASP	290	1.743	12.969	39.315	1.00	17.19
ATOM	2140	CA	ASP	290	0.831	12.363	38.335	1.00	19.56
ATOM	2141	CB	ASP	290	-0.656	12.500	38.719	1.00	15.38
ATOM	2142	CG	ASP	290	-1.145	13.949	38.821	1.00	16.93
ATOM	2143	OD1	ASP	290	-0.451	14.895	38.425	1.00	19.31
ATOM	2144	OD2	ASP	290	-2.266	14.146	39.330	1.00	20.16
ATOM	2145	C	ASP	290	1.091	12.903	36.918	1.00	21.38
ATOM	2146	O	ASP	290	0.359	12.599	35.965	1.00	20.82
ATOM	2147	N	GLY	291	2.127	13.731	36.804	1.00	20.74
ATOM	2148	CA	GLY	291	2.497	14.292	35.521	1.00	19.62
ATOM	2149	C	GLY	291	1.839	15.603	35.135	1.00	19.15
ATOM	2150	O	GLY	291	2.094	16.084	34.050	1.00	22.62
ATOM	2151	N	ARG	292	1.015	16.199	35.990	1.00	16.94
ATOM	2152	CA	ARG	292	0.365	17.458	35.636	1.00	16.45
ATOM	2153	CB	ARG	292	-0.652	17.846	36.707	1.00	16.00
ATOM	2154	CG	ARG	292	-2.087	17.466	36.373	1.00	13.46
ATOM	2155	CD	ARG	292	-3.016	17.796	37.523	1.00	15.01
ATOM	2156	NE	ARG	292	-2.677	17.046	38.728	1.00	16.55
ATOM	2157	CZ	ARG	292	-3.323	17.178	39.881	1.00	16.29
ATOM	2158	NH1	ARG	292	-2.958	16.450	40.923	1.00	16.24
ATOM	2159	NH2	ARG	292	-4.326	18.047	40.000	1.00	20.20
ATOM	2160	C	ARG	292	1.327	18.610	35.381	1.00	18.18
ATOM	2161	O	ARG	292	1.186	19.360	34.409	1.00	20.15
ATOM	2162	N	ILE	293	2.260	18.792	36.304	1.00	19.27
ATOM	2163	CA	ILE	293	3.272	19.839	36.207	1.00	19.35
ATOM	2164	CB	ILE	293	3.756	20.308	37.615	1.00	18.26
ATOM	2165	CG2	ILE	293	4.986	21.213	37.475	1.00	13.47
ATOM	2166	CG1	ILE	293	2.583	20.974	38.358	1.00	17.33
ATOM	2167	CD1	ILE	293	2.847	21.314	39.841	1.00	19.28
ATOM	2168	C	ILE	293	4.449	19.262	35.441	1.00	20.50
ATOM	2169	O	ILE	293	5.168	18.374	35.925	1.00	19.64
ATOM	2170	N	LYS	294	4.676	19.819	34.263	1.00	22.18
ATOM	2171	CA	LYS	294	5.736	19.353	33.396	1.00	23.18
ATOM	2172	CB	LYS	294	5.133	19.020	32.037	1.00	22.75
ATOM	2173	CG	LYS	294	4.195	17.839	32.119	1.00	25.66
ATOM	2174	CD	LYS	294	3.179	17.861	31.011	1.00	35.38

ATOM	2175	CE	LYS	294	2.258	19.063	31.126	1.00	37.58
ATOM	2176	NZ	LYS	294	1.436	19.204	29.899	1.00	45.36
ATOM	2177	C	LYS	294	6.861	20.355	33.240	1.00	24.17
ATOM	2178	O	LYS	294	6.687	21.543	33.502	1.00	21.79
ATOM	2179	N	PRO	295	8.055	19.870	32.858	1.00	26.71
ATOM	2180	CD	PRO	295	8.422	18.441	32.760	1.00	25.96
ATOM	2181	CA	PRO	295	9.225	20.728	32.655	1.00	26.30
ATOM	2182	CB	PRO	295	10.238	19.764	32.039	1.00	26.39
ATOM	2183	CG	PRO	295	9.930	18.476	32.751	1.00	26.66
ATOM	2184	C	PRO	295	8.908	21.899	31.716	1.00	26.59
ATOM	2185	O	PRO	295	8.211	21.742	30.705	1.00	26.20
ATOM	2186	N	GLY	296	9.380	23.079	32.094	1.00	25.52
ATOM	2187	CA	GLY	296	9.147	24.270	31.303	1.00	23.85
ATOM	2188	C	GLY	296	7.952	25.085	31.758	1.00	22.83
ATOM	2189	O	GLY	296	7.844	26.266	31.435	1.00	24.26
ATOM	2190	N	GLN	297	7.071	24.483	32.548	1.00	21.83
ATOM	2191	CA	GLN	297	5.873	25.187	32.991	1.00	20.04
ATOM	2192	CB	GLN	297	4.752	24.188	33.301	1.00	17.94
ATOM	2193	CG	GLN	297	4.305	23.413	32.059	1.00	19.63
ATOM	2194	CD	GLN	297	3.114	22.530	32.295	1.00	19.35
ATOM	2195	OE1	GLN	297	3.044	21.821	33.293	1.00	24.99
ATOM	2196	NE2	GLN	297	2.160	22.561	31.375	1.00	19.09
ATOM	2197	C	GLN	297	6.087	26.173	34.134	1.00	18.50
ATOM	2198	O	GLN	297	7.054	26.055	34.888	1.00	19.31
ATOM	2199	N	LEU	298	5.205	27.171	34.198	1.00	17.66
ATOM	2200	CA	LEU	298	5.220	28.217	35.223	1.00	16.88
ATOM	2201	CB	LEU	298	4.889	29.587	34.615	1.00	17.74
ATOM	2202	CG	LEU	298	5.757	30.825	34.919	1.00	20.62
ATOM	2203	CD1	LEU	298	4.902	32.066	34.961	1.00	18.71
ATOM	2204	CD2	LEU	298	6.489	30.653	36.193	1.00	18.34
ATOM	2205	C	LEU	298	4.147	27.882	36.254	1.00	16.03
ATOM	2206	O	LEU	298	2.949	27.810	35.925	1.00	13.59
ATOM	2207	N	VAL	299	4.580	27.719	37.502	1.00	16.10
ATOM	2208	CA	VAL	299	3.681	27.366	38.595	1.00	16.27
ATOM	2209	CB	VAL	299	4.088	25.985	39.177	1.00	15.60
ATOM	2210	CG1	VAL	299	3.169	25.561	40.312	1.00	14.99
ATOM	2211	CG2	VAL	299	4.100	24.959	38.061	1.00	11.29
ATOM	2212	C	VAL	299	3.688	28.423	39.695	1.00	16.18
ATOM	2213	O	VAL	299	4.755	28.857	40.146	1.00	14.93
ATOM	2214	N	LEU	300	2.501	28.880	40.080	1.00	16.84
ATOM	2215	CA	LEU	300	2.370	29.880	41.147	1.00	16.98
ATOM	2216	CB	LEU	300	1.465	31.034	40.685	1.00	20.15

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ATOM    2217  CG   LEU   300        1.291   32.390   41.416   1.00  25.35
ATOM    2218  CD1  LEU   300       -0.091   32.477   41.989   1.00  27.47
ATOM    2219  CD2  LEU   300        2.350   32.680   42.469   1.00  24.17
ATOM    2220  C    LEU   300        1.837   29.249   42.443   1.00  15.82
ATOM    2221  O    LEU   300        0.775   28.605   42.460   1.00  13.69
ATOM    2222  N    LEU   301        2.627   29.381   43.501   1.00  15.71
ATOM    2223  CA   LEU   301        2.272   28.859   44.808   1.00  17.02
ATOM    2224  CB   LEU   301        3.475   28.175   45.487   1.00  17.34
ATOM    2225  CG   LEU   301        4.314   27.110   44.779   1.00  20.40
ATOM    2226  CD1  LEU   301        5.387   26.632   45.734   1.00  21.82
ATOM    2227  CD2  LEU   301        3.483   25.946   44.320   1.00  19.95
ATOM    2228  C    LEU   301        1.858   30.033   45.674   1.00  15.38
ATOM    2229  O    LEU   301        2.502   31.065   45.640   1.00  15.44
ATOM    2230  N    GLU   302        0.776   29.879   46.430   1.00  18.55
ATOM    2231  CA   GLU   302        0.316   30.919   47.355   1.00  16.99
ATOM    2232  CB   GLU   302       -0.581   31.960   46.667   1.00  14.13
ATOM    2233  CG   GLU   302       -1.617   31.407   45.703   1.00  12.17
ATOM    2234  CD   GLU   302       -2.956   31.159   46.336   1.00  13.57
ATOM    2235  OE1  GLU   302       -3.954   31.157   45.600   1.00  17.58
ATOM    2236  OE2  GLU   302       -3.031   30.925   47.558   1.00  19.56
ATOM    2237  C    GLU   302       -0.344   30.308   48.597   1.00  15.45
ATOM    2238  O    GLU   302       -0.813   29.172   48.564   1.00  12.77
ATOM    2239  N    ALA   303       -0.360   31.072   49.683   1.00  15.48
ATOM    2240  CA   ALA   303       -0.934   30.617   50.937   1.00  13.31
ATOM    2241  CB   ALA   303        0.045   29.692   51.624   1.00  11.10
ATOM    2242  C    ALA   303       -1.261   31.801   51.853   1.00  12.59
ATOM    2243  O    ALA   303       -0.614   32.842   51.789   1.00  11.22
ATOM    2244  N    PHE   304       -2.299   31.642   52.666   1.00  14.82
ATOM    2245  CA   PHE   304       -2.726   32.650   53.626   1.00  15.34
ATOM    2246  CB   PHE   304       -4.075   33.248   53.207   1.00  17.57
ATOM    2247  CG   PHE   304       -4.561   34.355   54.119   1.00  23.99
ATOM    2248  CD1  PHE   304       -5.356   34.060   55.243   1.00  22.77
ATOM    2249  CD2  PHE   304       -4.220   35.687   53.866   1.00  22.34
ATOM    2250  CE1  PHE   304       -5.794   35.064   56.089   1.00  19.22
ATOM    2251  CE2  PHE   304       -4.657   36.705   54.712   1.00  24.60
ATOM    2252  CZ   PHE   304       -5.447   36.389   55.826   1.00  19.92
ATOM    2253  C    PHE   304       -2.831   31.946   54.982   1.00  15.89
ATOM    2254  O    PHE   304       -3.176   30.768   55.041   1.00  14.69
ATOM    2255  N    GLY   305       -2.490   32.637   56.065   1.00  14.20
ATOM    2256  CA   GLY   305       -2.583   32.002   57.363   1.00  13.74
ATOM    2257  C    GLY   305       -2.765   32.889   58.578   1.00  13.32
ATOM    2258  O    GLY   305       -2.788   34.115   58.496   1.00  12.57
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ATOM	2259	N	GLY	306	-2.856	32.235	59.727	1.00	17.80
ATOM	2260	CA	GLY	306	-3.033	32.929	60.990	1.00	17.87
ATOM	2261	C	GLY	306	-1.928	33.892	61.357	1.00	19.45
ATOM	2262	O	GLY	306	-0.758	33.751	60.965	1.00	19.00
ATOM	2263	N	GLY	307	-2.336	34.865	62.166	1.00	22.79
ATOM	2264	CA	GLY	307	-1.483	35.939	62.630	1.00	22.36
ATOM	2265	C	GLY	307	-1.681	37.014	61.605	1.00	24.75
ATOM	2266	O	GLY	307	-1.830	38.181	61.939	1.00	24.75
ATOM	2267	N	PHE	308	-2.091	36.462	60.463	1.00	26.48
ATOM	2268	CA	PHE	308	-2.297	37.033	59.172	1.00	18.96
ATOM	2269	CB	PHE	308	-3.273	38.185	59.097	1.00	19.83
ATOM	2270	CG	PHE	308	-4.714	37.733	59.114	1.00	18.27
ATOM	2271	CD1	PHE	308	-5.705	38.496	58.524	1.00	17.81
ATOM	2272	CD2	PHE	308	-5.087	36.579	59.814	1.00	18.44
ATOM	2273	CE1	PHE	308	-7.048	38.137	58.640	1.00	16.79
ATOM	2274	CE2	PHE	308	-6.407	36.219	59.931	1.00	14.31
ATOM	2275	CZ	PHE	308	-7.395	37.009	59.341	1.00	17.98
ATOM	2276	C	PHE	308	-0.953	37.237	58.546	1.00	15.85
ATOM	2277	O	PHE	308	-0.182	38.146	58.875	1.00	12.97
ATOM	2278	N	THR	309	-0.581	36.135	57.912	1.00	14.84
ATOM	2279	CA	THR	309	0.636	36.026	57.161	1.00	13.39
ATOM	2280	CB	THR	309	1.539	34.952	57.743	1.00	12.59
ATOM	2281	OG1	THR	309	0.761	33.781	58.019	1.00	12.26
ATOM	2282	CG2	THR	309	2.201	35.428	58.994	1.00	14.65
ATOM	2283	C	THR	309	0.158	35.537	55.790	1.00	13.19
ATOM	2284	O	THR	309	-0.941	34.999	55.647	1.00	14.18
ATOM	2285	N	TRP	310	0.943	35.796	54.771	1.00	13.65
ATOM	2286	CA	TRP	310	0.606	35.320	53.442	1.00	14.58
ATOM	2287	CB	TRP	310	-0.638	36.043	52.828	1.00	15.58
ATOM	2288	CG	TRP	310	-0.605	37.555	52.659	1.00	14.75
ATOM	2289	CD2	TRP	310	-0.920	38.549	53.647	1.00	15.84
ATOM	2290	CE2	TRP	310	-0.815	39.810	53.023	1.00	16.97
ATOM	2291	CE3	TRP	310	-1.284	38.493	55.001	1.00	15.73
ATOM	2292	CD1	TRP	310	-0.329	38.243	51.511	1.00	16.44
ATOM	2293	NE1	TRP	310	-0.455	39.594	51.719	1.00	15.99
ATOM	2294	CZ2	TRP	310	-1.062	41.017	53.709	1.00	16.98
ATOM	2295	CZ3	TRP	310	-1.529	39.694	55.683	1.00	10.90
ATOM	2296	CH2	TRP	310	-1.416	40.933	55.038	1.00	14.77
ATOM	2297	C	TRP	310	1.873	35.331	52.578	1.00	14.36
ATOM	2298	O	TRP	310	2.820	36.087	52.852	1.00	14.70
ATOM	2299	N	GLY	311	1.955	34.379	51.656	1.00	13.14
ATOM	2300	CA	GLY	311	3.122	34.281	50.808	1.00	13.14

ATOM	2301	C	GLY	311	2.869	33.614	49.468	1.00	13.37
ATOM	2302	O	GLY	311	1.818	33.013	49.233	1.00	14.87
ATOM	2303	N	SER	312	3.865	33.683	48.601	1.00	13.95
ATOM	2304	CA	SER	312	3.769	33.090	47.286	1.00	14.72
ATOM	2305	CB	SER	312	3.069	34.058	46.335	1.00	13.55
ATOM	2306	OG	SER	312	3.903	35.184	46.073	1.00	13.28
ATOM	2307	C	SER	312	5.159	32.790	46.760	1.00	16.70
ATOM	2308	O	SER	312	6.178	33.267	47.306	1.00	13.31
ATOM	2309	N	ALA	313	5.186	32.019	45.680	1.00	15.43
ATOM	2310	CA	ALA	313	6.416	31.658	45.015	1.00	15.37
ATOM	2311	CB	ALA	313	7.010	30.391	45.632	1.00	11.61
ATOM	2312	C	ALA	313	6.064	31.413	43.556	1.00	14.47
ATOM	2313	O	ALA	313	5.072	30.762	43.277	1.00	15.60
ATOM	2314	N	LEU	314	6.824	32.008	42.644	1.00	16.22
ATOM	2315	CA	LEU	314	6.639	31.817	41.202	1.00	15.16
ATOM	2316	CB	LEU	314	6.761	33.147	40.463	1.00	14.88
ATOM	2317	CG	LEU	314	6.404	33.012	38.982	1.00	15.38
ATOM	2318	CD1	LEU	314	4.934	32.602	38.863	1.00	11.34
ATOM	2319	CD2	LEU	314	6.683	34.311	38.244	1.00	11.57
ATOM	2320	C	LEU	314	7.783	30.879	40.805	1.00	16.52
ATOM	2321	O	LEU	314	8.961	31.229	40.970	1.00	16.45
ATOM	2322	N	VAL	315	7.437	29.690	40.316	1.00	14.15
ATOM	2323	CA	VAL	315	8.421	28.679	39.970	1.00	15.36
ATOM	2324	CB	VAL	315	8.308	27.438	40.918	1.00	16.16
ATOM	2325	CG1	VAL	315	9.478	26.492	40.695	1.00	12.82
ATOM	2326	CG2	VAL	315	8.239	27.862	42.377	1.00	15.71
ATOM	2327	C	VAL	315	8.324	28.145	38.534	1.00	18.26
ATOM	2328	O	VAL	315	7.247	27.758	38.057	1.00	16.25
ATOM	2329	N	ARG	316	9.464	28.114	37.862	1.00	19.63
ATOM	2330	CA	ARG	316	9.551	27.587	36.515	1.00	20.22
ATOM	2331	CB	ARG	316	10.456	28.466	35.661	1.00	20.75
ATOM	2332	CG	ARG	316	10.553	28.026	34.210	1.00	24.39
ATOM	2333	CD	ARG	316	10.143	29.157	33.320	1.00	26.64
ATOM	2334	NE	ARG	316	8.851	28.906	32.709	1.00	30.48
ATOM	2335	CZ	ARG	316	8.025	29.856	32.292	1.00	29.88
ATOM	2336	NH1	ARG	316	6.881	29.506	31.725	1.00	36.99
ATOM	2337	NH2	ARG	316	8.316	31.143	32.469	1.00	30.44
ATOM	2338	C	ARG	316	10.132	26.185	36.624	1.00	20.43
ATOM	2339	O	ARG	316	11.289	26.008	37.014	1.00	23.75
ATOM	2340	N	PHE	317	9.298	25.188	36.366	1.00	20.64
ATOM	2341	CA	PHE	317	9.728	23.797	36.424	1.00	20.59
ATOM	2342	CB	PHE	317	8.557	22.882	36.813	1.00	17.53

ATOM	2343	CG	PHE	317	8.284	22.842	38.295	1.00 18.67
ATOM	2344	CD1	PHE	317	7.320	23.661	38.863	1.00 17.67
ATOM	2345	CD2	PHE	317	9.005	21.986	39.122	1.00 18.59
ATOM	2346	CE1	PHE	317	7.077	23.624	40.235	1.00 20.49
ATOM	2347	CE2	PHE	317	8.767	21.945	40.488	1.00 18.75
ATOM	2348	CZ	PHE	317	7.802	22.766	41.046	1.00 16.30
ATOM	2349	C	PHE	317	10.340	23.374	35.093	1.00 20.89
ATOM	2350	O	PHE	317	10.733	22.201	34.959	1.00 23.06
ATOM	2351	OT	PHE	317	10.451	24.237	34.199	1.00 21.02
ATOM	2352	CB	MET	1001	23.816	44.935	49.963	1.00 44.03
ATOM	2353	CG	MET	1001	23.297	46.148	49.201	1.00 47.13
ATOM	2354	SD	MET	1001	24.530	47.503	49.208	1.00 57.39
ATOM	2355	CE	MET	1001	23.525	48.946	49.750	1.00 57.30
ATOM	2356	C	MET	1001	25.837	43.723	50.792	1.00 38.76
ATOM	2357	O	MET	1001	26.415	42.642	50.612	1.00 38.53
ATOM	2358	N	MET	1001	25.306	43.694	48.381	1.00 41.12
ATOM	2359	CA	MET	1001	25.267	44.517	49.620	1.00 41.24
ATOM	2360	N	TYR	1002	25.717	44.307	51.976	1.00 33.33
ATOM	2361	CA	TYR	1002	26.140	43.698	53.219	1.00 29.56
ATOM	2362	CB	TYR	1002	27.510	44.208	53.700	1.00 29.44
ATOM	2363	CG	TYR	1002	28.637	43.424	53.110	1.00 32.63
ATOM	2364	CD1	TYR	1002	29.344	43.907	52.007	1.00 33.61
ATOM	2365	CE1	TYR	1002	30.303	43.122	51.368	1.00 37.52
ATOM	2366	CD2	TYR	1002	28.932	42.140	·53.581	1.00 34.89
ATOM	2367	CE2	TYR	1002	29.887	41.344	52.953	1.00 35.16
ATOM	2368	CZ	TYR	1002	30.567	41.842	51.844	1.00 39.02
ATOM	2369	OH	TYR	1002	31.477	41.046	51.173	1.00 45.57
ATOM	2370	C	TYR	1002	25.088	44.175	54.172	1.00 26.41
ATOM	2371	O	TYR	1002	24.245	44.988	53.810	1.00 24.80
ATOM	2372	N	THR	1003	25.147	43.672	55.388	1.00 25.04
ATOM	2373	CA	THR	1003	24.204	44.061	56.403	1.00 23.93
ATOM	2374	CB	THR	1003	23.452	42.826	56.979	1.00 22.92
ATOM	2375	OG1	THR	1003	22.850	42.079	55.912	1.00 21.31
ATOM	2376	CG2	THR	1003	22.394	43.254	57.994	1.00 17.11
ATOM	2377	C	THR	1003	25.032	44.683	57.517	1.00 23.62
ATOM	2378	O	THR	1003	26.171	44.272	57.765	1.00 23.96
ATOM	2379	N	LYS	1004	24.465	45.687	58.159	1.00 23.62
ATOM	2380	CA	LYS	1004	25.100	46.337	59.274	1.00 22.82
ATOM	2381	CB	LYS	1004	25.574	47.732	58.898	1.00 25.72
ATOM	2382	CG	LYS	1004	27.015	47.755	58.470	1.00 30.63
ATOM	2383	CD	LYS	1004	27.520	49.171	58.279	1.00 34.94
ATOM	2384	CE	LYS	1004	28.972	49.168	57.784	1.00 37.88

ATOM	2385	NZ	LYS	1004	29.451	50.533	57.368	1.00	43.45
ATOM	2386	C	LYS	1004	24.020	46.437	60.317	1.00	22.03
ATOM	2387	O	LYS	1004	22.842	46.578	59.975	1.00	21.25
ATOM	2388	N	ILE	1005	24.407	46.256	61.575	1.00	22.55
ATOM	2389	CA	ILE	1005	23.493	46.372	62.699	1.00	21.61
ATOM	2390	CB	ILE	1005	23.941	45.452	63.877	1.00	22.54
ATOM	2391	CG2	ILE	1005	23.069	45.699	65.110	1.00	18.92
ATOM	2392	CG1	ILE	1005	23.913	43.976	63.416	1.00	23.60
ATOM	2393	CD1	ILE	1005	24.468	42.943	64.410	1.00	22.77
ATOM	2394	C	ILE	1005	23.627	47.847	63.072	1.00	22.86
ATOM	2395	O	ILE	1005	24.710	48.302	63.428	1.00	23.79
ATOM	2396	N	ILE	1006	22.564	48.619	62.868	1.00	22.57
ATOM	2397	CA	ILE	1006	22.589	50.054	63.179	1.00	22.15
ATOM	2398	CB	ILE	1006	22.014	50.911	61.986	1.00	22.64
ATOM	2399	CG2	ILE	1006	22.879	50.726	60.744	1.00	21.36
ATOM	2400	CG1	ILE	1006	20.549	50.536	61.692	1.00	23.15
ATOM	2401	CD1	ILE	1006	19.817	51.497	60.753	1.00	18.71
ATOM	2402	C	ILE	1006	21.835	50.402	64.477	1.00	21.83
ATOM	2403	O	ILE	1006	21.742	51.564	64.860	1.00	21.22
ATOM	2404	N	GLY	1007	21.342	49.383	65.170	1.00	21.35
ATOM	2405	CA	GLY	1007	20.609	49.617	66.390	1.00	19.10
ATOM	2406	C	GLY	1007	20.456	48.358	67.198	1.00	18.49
ATOM	2407	O	GLY	1007	20.291	47.271	66.654	1.00	19.05
ATOM	2408	N	THR	1008	20.549	48.509	68.509	1.00	20.12
ATOM	2409	CA	THR	1008	20.410	47.403	69.451	1.00	18.49
ATOM	2410	CB	THR	1008	21.793	46.977	70.035	1.00	18.43
ATOM	2411	OG1	THR	1008	22.450	48.108	70.610	1.00	19.69
ATOM	2412	CG2	THR	1008	22.674	46.379	68.971	1.00	16.60
ATOM	2413	C	THR	1008	19.459	47.875	70.558	1.00	17.92
ATOM	2414	O	THR	1008	19.275	49.080	70.758	1.00	18.47
ATOM	2415	N	GLY	1009	18.830	46.939	71.246	1.00	15.44
ATOM	2416	CA	GLY	1009	17.941	47.341	72.303	1.00	14.56
ATOM	2417	C	GLY	1009	17.668	46.155	73.173	1.00	14.75
ATOM	2418	O	GLY	1009	17.845	45.017	72.746	1.00	15.02
ATOM	2419	N	SER	1010	17.284	46.404	74.415	1.00	16.90
ATOM	2420	CA	SER	1010	16.978	45.312	75.322	1.00	19.62
ATOM	2421	CB	SER	1010	18.248	44.768	75.972	1.00	21.80
ATOM	2422	OG	SER	1010	18.760	45.642	76.963	1.00	30.17
ATOM	2423	C	SER	1010	15.993	45.742	76.367	1.00	18.21
ATOM	2424	O	SER	1010	15.858	46.926	76.651	1.00	19.59
ATOM	2425	N	TYR	1011	15.307	44.763	76.924	1.00	17.54
ATOM	2426	CA	TYR	1011	14.321	45.000	77.946	1.00	17.06

ATOM	2427	CB	TYR	1011	12.918	45.060	77.339	1.00	17.36
ATOM	2428	CG	TYR	1011	11.837	45.079	78.377	1.00	14.93
ATOM	2429	CD1	TYR	1011	11.472	46.269	78.994	1.00	19.77
ATOM	2430	CE1	TYR	1011	10.563	46.283	80.046	1.00	18.42
ATOM	2431	CD2	TYR	1011	11.258	43.897	78.828	1.00	16.49
ATOM	2432	CE2	TYR	1011	10.345	43.899	79.888	1.00	16.51
ATOM	2433	CZ	TYR	1011	10.015	45.100	80.490	1.00	18.66
ATOM	2434	OH	TYR	1011	9.192	45.138	81.584	1.00	21.84
ATOM	2435	C	TYR	1011	14.390	43.850	78.942	1.00	19.80
ATOM	2436	O	TYR	1011	14.284	42.677	78.553	1.00	18.93
ATOM	2437	N	LEU	1012	14.632	44.167	80.209	1.00	19.46
ATOM	2438	CA	LEU	1012	14.663	43.148	81.257	1.00	19.49
ATOM	2439	CB	LEU	1012	15.983	43.211	82.010	1.00	22.92
ATOM	2440	CG	LEU	1012	17.263	42.812	81.270	1.00	27.32
ATOM	2441	CD1	LEU	1012	18.403	42.975	82.262	1.00	33.79
ATOM	2442	CD2	LEU	1012	17.176	41.370	80.787	1.00	28.23
ATOM	2443	C	LEU	1012	13.502	43.491	82.198	1.00	20.34
ATOM	2444	O	LEU	1012	13.415	44.618	82.696	1.00	22.11
ATOM	2445	N	PRO	1013	12.606	42.531	82.470	1.00	17.74
ATOM	2446	CD	PRO	1013	12.634	41.113	82.096	1.00	15.62
ATOM	2447	CA	PRO	1013	11.470	42.807	83.355	1.00	18.81
ATOM	2448	CB	PRO	1013	10.832	41.433	83.514	1.00	18.61
ATOM	2449	CG	PRO	1013	11.195	40.732	82.267	1.00	18.60
ATOM	2450	C	PRO	1013	11.851	43.431	84.699	1.00	22.40
ATOM	2451	O	PRO	1013	13.020	43.434	85.083	1.00	21.42
ATOM	2452	N	GLU	1014	10.849	43.951	85.406	1.00	25.20
ATOM	2453	CA	GLU	1014	11.046	44.598	86.696	1.00	27.30
ATOM	2454	CB	GLU	1014	9.757	45.299	87.112	1.00	34.52
ATOM	2455	CG	GLU	1014	9.938	46.756	87.490	1.00	45.21
ATOM	2456	CD	GLU	1014	9.088	47.172	88.682	1.00	53.92
ATOM	2457	OE1	GLU	1014	7.843	47.036	88.628	1.00	57.54
ATOM	2458	OE2	GLU	1014	9.678	47.629	89.685	1.00	59.92
ATOM	2459	C	GLU	1014	11.491	43.667	87.817	1.00	26.66
ATOM	2460	O	GLU	1014	12.546	43.873	88.410	1.00	27.71
ATOM	2461	N	GLN	1015	10.683	42.644	88.095	1.00	26.19
ATOM	2462	CA	GLN	1015	10.973	41.688	89.162	1.00	26.22
ATOM	2463	CB	GLN	1015	9.879	40.611	89.275	1.00	24.98
ATOM	2464	CG	GLN	1015	10.206	39.510	90.313	1.00	25.72
ATOM	2465	CD	GLN	1015	9.140	38.415	90.416	1.00	27.87
ATOM	2466	OE1	GLN	1015	8.031	38.554	89.888	1.00	32.06
ATOM	2467	NE2	GLN	1015	9.475	37.321	91.098	1.00	24.40
ATOM	2468	C	GLN	1015	12.312	41.004	89.005	1.00	26.86

ATOM	2469	O	GLN	1015	12.645	40.514	87.932	1.00	27.86
ATOM	2470	N	VAL	1016	13.072	40.981	90.087	1.00	24.72
ATOM	2471	CA	VAL	1016	14.361	40.319	90.125	1.00	25.56
ATOM	2472	CB	VAL	1016	15.452	41.228	90.749	1.00	26.19
ATOM	2473	CG1	VAL	1016	16.695	40.419	91.068	1.00	27.29
ATOM	2474	CG2	VAL	1016	15.787	42.378	89.813	1.00	23.87
ATOM	2475	C	VAL	1016	14.171	39.117	91.039	1.00	27.13
ATOM	2476	O	VAL	1016	13.390	39.178	91.995	1.00	27.75
ATOM	2477	N	ARG	1017	14.840	38.017	90.722	1.00	25.45
ATOM	2478	CA	ARG	1017	14.783	36.813	91.542	1.00	23.63
ATOM	2479	CB	ARG	1017	14.217	35.629	90.758	1.00	22.59
ATOM	2480	CG	ARG	1017	14.276	34.313	91.500	1.00	20.90
ATOM	2481	CD	ARG	1017	13.607	33.243	90.702	1.00	19.86
ATOM	2482	NE	ARG	1017	12.159	33.429	90.620	1.00	20.03
ATOM	2483	CZ	ARG	1017	11.368	32.772	89.768	1.00	22.69
ATOM	2484	NH1	ARG	1017	10.053	32.980	89.769	1.00	22.82
ATOM	2485	NH2	ARG	1017	11.885	31.927	88.878	1.00	20.16
ATOM	2486	C	ARG	1017	16.227	36.554	91.952	1.00	24.33
ATOM	2487	O	ARG	1017	17.082	36.233	91.126	1.00	24.14
ATOM	2488	N	THR	1018	16.523	36.836	93.210	1.00	25.31
ATOM	2489	CA	THR	1018	17.872	36.649	93.724	1.00	25.23
ATOM	2490	CB	THR	1018	18.139	37.608	94.861	1.00	24.12
ATOM	2491	OG1	THR	1018	17.172	37.383	95.893	1.00	26.97
ATOM	2492	CG2	THR	1018	17.997	39.027	94.393	1.00	25.13
ATOM	2493	C	THR	1018	18.022	35.228	94.267	1.00	24.56
ATOM	2494	O	THR	1018	17.034	34.501	94.468	1.00	23.45
ATOM	2495	N	ASN	1019	19.252	34.860	94.588	1.00	24.53
ATOM	2496	CA	ASN	1019	19.516	33.538	95.125	1.00	24.39
ATOM	2497	CB	ASN	1019	21.015	33.314	95.234	1.00	25.32
ATOM	2498	CG	ASN	1019	21.681	33.267	93.872	1.00	27.86
ATOM	2499	OD1	ASN	1019	21.000	33.266	92.839	1.00	24.12
ATOM	2500	ND2	ASN	1019	23.011	33.237	93.857	1.00	25.21
ATOM	2501	C	ASN	1019	18.813	33.372	96.467	1.00	25.61
ATOM	2502	O	ASN	1019	18.467	32.254	96.845	1.00	24.69
ATOM	2503	N	ALA	1020	18.567	34.492	97.157	1.00	26.16
ATOM	2504	CA	ALA	1020	17.856	34.476	98.434	1.00	26.16
ATOM	2505	CB	ALA	1020	17.899	35.839	99.102	1.00	27.24
ATOM	2506	C	ALA	1020	16.402	34.061	98.174	1.00	27.49
ATOM	2507	O	ALA	1020	15.806	33.343	98.975	1.00	27.63
ATOM	2508	N	ASP	1021	15.834	34.510	97.050	1.00	26.85
ATOM	2509	CA	ASP	1021	14.470	34.130	96.699	1.00	27.14
ATOM	2510	CB	ASP	1021	13.969	34.891	95.479	1.00	30.08

ATOM	2511	CG	ASP	1021	13.741	36.348	95.757	1.00	33.00
ATOM	2512	OD1	ASP	1021	14.014	37.156	94.858	1.00	33.43
ATOM	2513	OD2	ASP	1021	13.264	36.683	96.867	1.00	33.80
ATOM	2514	C	ASP	1021	14.446	32.627	96.382	1.00	28.13
ATOM	2515	O	ASP	1021	13.510	31.924	96.784	1.00	28.00
ATOM	2516	N	LEU	1022	15.449	32.180	95.617	1.00	27.41
ATOM	2517	CA	LEU	1022	15.570	30.766	95.235	1.00	27.23
ATOM	2518	CB	LEU	1022	16.806	30.557	94.318	1.00	25.89
ATOM	2519	CG	LEU	1022	16.726	30.581	92.781	1.00	23.81
ATOM	2520	CD1	LEU	1022	15.345	30.235	92.294	1.00	18.74
ATOM	2521	CD2	LEU	1022	17.173	31.914	92.262	1.00	25.58
ATOM	2522	C	LEU	1022	15.739	29.870	96.476	1.00	27.89
ATOM	2523	O	LEU	1022	15.220	28.752	96.498	1.00	26.04
ATOM	2524	N	GLU	1023	16.495	30.381	97.459	1.00	30.41
ATOM	2525	CA	GLU	1023	16.740	29.663	98.693	1.00	34.05
ATOM	2526	CB	GLU	1023	17.569	30.509	99.646	1.00	33.83
ATOM	2527	CG	GLU	1023	19.053	30.507	99.344	1.00	38.52
ATOM	2528	CD	GLU	1023	19.859	31.163	100.455	1.00	39.91
ATOM	2529	OE1	GLU	1023	19.316	31.271	101.575	1.00	42.45
ATOM	2530	OE2	GLU	1023	21.020	31.565	100.218	1.00	39.76
ATOM	2531	C	GLU	1023	15.450	29.266	99.400	1.00	35.67
ATOM	2532	O	GLU	1023	15.366	28.203	100.042	1.00	37.12
ATOM	2533	N	LYS	1024	14.440	30.102	99.281	1.00	33.97
ATOM	2534	CA	LYS	1024	13.187	29.784	99.953	1.00	34.86
ATOM	2535	CB	LYS	1024	12.558	30.984	100.698	1.00	41.86
ATOM	2536	CG	LYS	1024	11.901	32.036	99.800	1.00	47.89
ATOM	2537	CD	LYS	1024	11.566	33.290	100.671	1.00	53.03
ATOM	2538	CE	LYS	1024	10.802	32.993	101.963	1.00	57.77
ATOM	2539	NZ	LYS	1024	9.367	32.556	101.864	1.00	57.17
ATOM	2540	C	LYS	1024	12.201	29.110	98.969	1.00	34.01
ATOM	2541	O	LYS	1024	11.100	28.852	99.331	1.00	33.81
ATOM	2542	N	MET	1025	12.715	28.787	97.797	1.00	32.66
ATOM	2543	CA	MET	1025	11.914	28.120	96.760	1.00	29.34
ATOM	2544	CB	MET	1025	12.160	28.748	95.378	1.00	30.00
ATOM	2545	CG	MET	1025	11.519	30.145	95.193	1.00	31.94
ATOM	2546	SD	MET	1025	11.918	30.837	93.564	1.00	32.77
ATOM	2547	CE	MET	1025	10.878	29.793	92.457	1.00	28.16
ATOM	2548	C	MET	1025	12.264	26.622	96.649	1.00	27.43
ATOM	2549	O	MET	1025	11.408	25.757	96.441	1.00	25.33
ATOM	2550	N	VAL	1026	13.563	26.334	96.632	1.00	27.11
ATOM	2551	CA	VAL	1026	14.072	24.970	96.532	1.00	28.03
ATOM	2552	CB	VAL	1026	14.599	24.692	95.105	1.00	27.84

ATOM	2553	CG1	VAL	1026	13.419	24.629	94.110	1.00	24.30
ATOM	2554	CG2	VAL	1026	15.601	25.763	94.700	1.00	27.01
ATOM	2555	C	VAL	1026	15.232	24.768	97.520	1.00	28.94
ATOM	2556	O	VAL	1026	15.774	25.734	98.054	1.00	26.84
ATOM	2557	N	ASP	1027	15.595	23.507	97.737	1.00	30.66
ATOM	2558	CA	ASP	1027	16.670	23.140	98.656	1.00	32.83
ATOM	2559	CB	ASP	1027	16.632	21.621	98.941	1.00	35.00
ATOM	2560	CG	ASP	1027	17.862	21.118	99.726	1.00	39.34
ATOM	2561	OD1	ASP	1027	18.486	20.110	99.295	1.00	41.65
ATOM	2562	OD2	ASP	1027	18.191	21.727	100.770	1.00	38.41
ATOM	2563	C	ASP	1027	18.032	23.552	98.091	1.00	32.99
ATOM	2564	O	ASP	1027	18.713	22.756	97.424	1.00	31.46
ATOM	2565	N	THR	1028	18.441	24.783	98.371	1.00	31.91
ATOM	2566	CA	THR	1028	19.719	25.269	97.878	1.00	33.13
ATOM	2567	CB	THR	1028	19.573	25.623	96.376	1.00	33.17
ATOM	2568	OG1	THR	1028	20.862	25.857	95.809	1.00	36.96
ATOM	2569	CG2	THR	1028	18.684	26.837	96.185	1.00	31.35
ATOM	2570	C	THR	1028	20.241	26.468	98.703	1.00	32.91
ATOM	2571	O	THR	1028	19.636	26.858	99.706	1.00	34.48
ATOM	2572	N	SER	1029	21.400	27.000	98.335	1.00	29.76
ATOM	2573	CA	SER	1029	21.942	28.142	99.049	1.00	27.09
ATOM	2574	CB	SER	1029	22.998	27.687	100.043	1.00	27.50
ATOM	2575	OG	SER	1029	24.187	27.311	99.370	1.00	26.51
ATOM	2576	C	SER	1029	22.583	29.091	98.057	1.00	28.30
ATOM	2577	O	SER	1029	22.972	28.675	96.960	1.00	28.05
ATOM	2578	N	ASP	1030	22.754	30.345	98.464	1.00	25.78
ATOM	2579	CA	ASP	1030	23.376	31.341	97.606	1.00	27.25
ATOM	2580	CB	ASP	1030	23.530	32.678	98.346	1.00	26.53
ATOM	2581	CG	ASP	1030	24.323	33.709	97.544	1.00	28.90
ATOM	2582	OD1	ASP	1030	23.885	34.095	96.454	1.00	31.66
ATOM	2583	OD2	ASP	1030	25.400	34.148	97.999	1.00	33.07
ATOM	2584	C	ASP	1030	24.734	30.849	97.085	1.00	27.59
ATOM	2585	O	ASP	1030	24.994	30.896	95.891	1.00	26.05
ATOM	2586	N	GLU	1031	25.563	30.298	97.962	1.00	27.94
ATOM	2587	CA	GLU	1031	26.878	29.847	97.537	1.00	28.10
ATOM	2588	CB	GLU	1031	27.727	29.450	98.725	1.00	30.62
ATOM	2589	CG	GLU	1031	29.200	29.543	98.404	1.00	39.42
ATOM	2590	CD	GLU	1031	30.060	28.805	99.393	1.00	44.69
ATOM	2591	OE1	GLU	1031	31.065	28.203	98.951	1.00	48.35
ATOM	2592	OE2	GLU	1031	29.733	28.826	100.606	1.00	46.31
ATOM	2593	C	GLU	1031	26.866	28.723	96.522	1.00	25.64
ATOM	2594	O	GLU	1031	27.646	28.734	95.588	1.00	25.21

ATOM	2595	N	TRP	1032	25.991	27.746	96.706	1.00	27.67
ATOM	2596	CA	TRP	1032	25.895	26.635	95.767	1.00	29.99
ATOM	2597	CB	TRP	1032	24.844	25.637	96.237	1.00	29.34
ATOM	2598	CG	TRP	1032	24.797	24.375	95.440	1.00	38.65
ATOM	2599	CD2	TRP	1032	23.808	24.013	94.464	1.00	41.79
ATOM	2600	CE2	TRP	1032	24.084	22.687	94.052	1.00	44.25
ATOM	2601	CE3	TRP	1032	22.706	24.681	93.913	1.00	40.56
ATOM	2602	CD1	TRP	1032	25.630	23.281	95.561	1.00	40.60
ATOM	2603	NE1	TRP	1032	25.199	22.264	94.731	1.00	44.52
ATOM	2604	CZ2	TRP	1032	23.294	22.018	93.112	1.00	45.34
ATOM	2605	CZ3	TRP	1032	21.924	24.018	92.984	1.00	44.26
ATOM	2606	CH2	TRP	1032	22.217	22.700	92.592	1.00	46.89
ATOM	2607	C	TRP	1032	25.521	27.159	94.376	1.00	30.77
ATOM	2608	O	TRP	1032	26.155	26.809	93.369	1.00	31.87
ATOM	2609	N	ILE	1033	24.512	28.024	94.341	1.00	29.88
ATOM	2610	CA	ILE	1033	24.044	28.618	93.102	1.00	26.72
ATOM	2611	CB	ILE	1033	22.841	29.565	93.349	1.00	25.28
ATOM	2612	CG2	ILE	1033	22.373	30.213	92.047	1.00	24.86
ATOM	2613	CG1	ILE	1033	21.678	28.785	93.965	1.00	22.79
ATOM	2614	CD1	ILE	1033	20.519	29.626	94.356	1.00	21.58
ATOM	2615	C	ILE	1033	25.172	29.376	92.439	1.00	27.28
ATOM	2616	O	ILE	1033	25.477	29.137	91.281	1.00	29.33
ATOM	2617	N	VAL	1034	25.861	30.217	93.191	1.00	26.12
ATOM	2618	CA	VAL	1034	26.942	30.987	92.602	1.00	25.78
ATOM	2619	CB	VAL	1034	27.441	32.106	93.538	1.00	25.07
ATOM	2620	CG1	VAL	1034	28.506	32.938	92.829	1.00	27.48
ATOM	2621	CG2	VAL	1034	26.274	33.003	93.931	1.00	24.27
ATOM	2622	C	VAL	1034	28.111	30.124	92.138	1.00	27.64
ATOM	2623	O	VAL	1034	28.621	30.324	91.041	1.00	24.69
ATOM	2624	N	THR	1035	28.478	29.107	92.914	1.00	30.30
ATOM	2625	CA	THR	1035	29.621	28.283	92.529	1.00	33.79
ATOM	2626	CB	THR	1035	30.128	27.339	93.643	1.00	36.77
ATOM	2627	OG1	THR	1035	29.176	26.290	93.857	1.00	44.71
ATOM	2628	CG2	THR	1035	30.406	28.095	94.933	1.00	38.31
ATOM	2629	C	THR	1035	29.354	27.467	91.290	1.00	31.29
ATOM	2630	O	THR	1035	30.265	27.184	90.502	1.00	32.74
ATOM	2631	N	ARG	1036	28.106	27.099	91.073	1.00	29.85
ATOM	2632	CA	ARG	1036	27.865	26.304	89.898	1.00	29.20
ATOM	2633	CB	ARG	1036	27.205	25.010	90.266	1.00	31.80
ATOM	2634	CG	ARG	1036	25.806	25.051	90.773	1.00	33.10
ATOM	2635	CD	ARG	1036	25.472	23.578	91.074	1.00	41.53
ATOM	2636	NE	ARG	1036	26.456	22.705	90.429	1.00	48.91

ATOM	2637	CZ	ARG	1036	26.352	22.204	89.195	1.00	54.72
ATOM	2638	NH1	ARG	1036	27.330	21.452	88.685	1.00	56.83
ATOM	2639	NH2	ARG	1036	25.263	22.418	88.473	1.00	60.41
ATOM	2640	C	ARG	1036	27.257	26.942	88.677	1.00	26.52
ATOM	2641	O	ARG	1036	27.299	26.369	87.598	1.00	26.98
ATOM	2642	N	THR	1037	26.713	28.141	88.849	1.00	23.63
ATOM	2643	CA	THR	1037	26.116	28.861	87.734	1.00	21.86
ATOM	2644	CB	THR	1037	24.587	29.040	87.910	1.00	20.71
ATOM	2645	OG1	THR	1037	24.338	29.914	89.018	1.00	21.81
ATOM	2646	CG2	THR	1037	23.885	27.715	88.135	1.00	22.06
ATOM	2647	C	THR	1037	26.764	30.205	87.484	1.00	21.40
ATOM	2648	O	THR	1037	26.844	30.647	86.348	1.00	22.30
ATOM	2649	N	GLY	1038	27.224	30.857	88.551	1.00	20.93
ATOM	2650	CA	GLY	1038	27.820	32.186	88.433	1.00	19.38
ATOM	2651	C	GLY	1038	26.744	33.255	88.434	1.00	18.87
ATOM	2652	O	GLY	1038	27.025	34.445	88.358	1.00	19.99
ATOM	2653	N	ILE	1039	25.500	32.809	88.561	1.00	19.13
ATOM	2654	CA	ILE	1039	24.333	33.685	88.557	1.00	19.64
ATOM	2655	CB	ILE	1039	23.123	32.966	87.910	1.00	18.54
ATOM	2656	CG2	ILE	1039	21.878	33.855	87.948	1.00	17.56
ATOM	2657	CG1	ILE	1039	23.475	32.529	86.479	1.00	18.69
ATOM	2658	CD1	ILE	1039	22.594	31.407	85.936	1.00	15.87
ATOM	2659	C	ILE	1039	23.908	34.156	89.957	1.00	21.12
ATOM	2660	O	ILE	1039	23.842	33.364	90.892	1.00	20.82
ATOM	2661	N	ARG	1040	23.621	35.450	90.073	1.00	23.03
ATOM	2662	CA	ARG	1040	23.180	36.067	91.318	1.00	24.53
ATOM	2663	CB	ARG	1040	24.115	37.213	91.689	1.00	24.04
ATOM	2664	CG	ARG	1040	25.531	36.759	91.947	1.00	30.09
ATOM	2665	CD	ARG	1040	26.413	37.914	92.393	1.00	35.04
ATOM	2666	NE	ARG	1040	27.684	37.427	92.931	1.00	42.59
ATOM	2667	CZ	ARG	1040	27.811	36.753	94.075	1.00	42.45
ATOM	2668	NH1	ARG	1040	29.011	36.338	94.468	1.00	42.83
ATOM	2669	NH2	ARG	1040	26.744	36.493	94.831	1.00	42.79
ATOM	2670	C	ARG	1040	21.745	36.582	91.206	1.00	24.49
ATOM	2671	O	ARG	1040	20.973	36.517	92.167	1.00	22.01
ATOM	2672	N	GLU	1041	21.391	37.096	90.030	1.00	27.34
ATOM	2673	CA	GLU	1041	20.047	37.621	89.788	1.00	27.51
ATOM	2674	CB	GLU	1041	20.024	39.138	89.959	1.00	30.50
ATOM	2675	CG	GLU	1041	20.544	39.618	91.296	1.00	36.33
ATOM	2676	CD	GLU	1041	20.125	41.035	91.621	1.00	39.11
ATOM	2677	OE1	GLU	1041	20.127	41.894	90.712	1.00	41.13
ATOM	2678	OE2	GLU	1041	19.793	41.292	92.797	1.00	40.27

ATOM	2679	C	GLU	1041	19.569	37.284	88.381	1.00	27.73
ATOM	2680	O	GLU	1041	20.386	37.047	87.488	1.00	24.40
ATOM	2681	N	ARG	1042	18.245	37.243	88.217	1.00	27.29
ATOM	2682	CA	ARG	1042	17.572	36.975	86.937	1.00	26.67
ATOM	2683	CB	ARG	1042	17.066	35.523	86.823	1.00	22.63
ATOM	2684	CG	ARG	1042	18.021	34.449	87.266	1.00	25.76
ATOM	2685	CD	ARG	1042	17.510	33.722	88.517	1.00	23.28
ATOM	2686	NE	ARG	1042	18.561	32.867	89.067	1.00	27.52
ATOM	2687	CZ	ARG	1042	19.311	33.179	90.124	1.00	26.29
ATOM	2688	NH1	ARG	1042	20.257	32.340	90.534	1.00	25.73
ATOM	2689	NH2	ARG	1042	19.089	34.301	90.799	1.00	22.90
ATOM	2690	C	ARG	1042	16.341	37.871	87.000	1.00	26.60
ATOM	2691	O	ARG	1042	15.832	38.151	88.095	1.00	25.32
ATOM	2692	N	HIS	1043	15.873	38.358	85.855	1.00	26.68
ATOM	2693	CA	HIS	1043	14.672	39.183	85.859	1.00	25.95
ATOM	2694	CB	HIS	1043	14.802	40.349	84.903	1.00	26.74
ATOM	2695	CG	HIS	1043	15.732	41.411	85.396	1.00	29.25
ATOM	2696	CD2	HIS	1043	15.494	42.661	85.849	1.00	30.00
ATOM	2697	ND1	HIS	1043	17.099	41.227	85.472	1.00	31.43
ATOM	2698	CE1	HIS	1043	17.661	42.328	85.941	1.00	32.33
ATOM	2699	NE2	HIS	1043	16.712	43.215	86.180	1.00	30.48
ATOM	2700	C	HIS	1043	13.514	38.277	85.540	1.00	25.43
ATOM	2701	O	HIS	1043	13.676	37.283	84.834	1.00	27.21
ATOM	2702	N	ILE	1044	12.351	38.583	86.089	1.00	23.34
ATOM	2703	CA	ILE	1044	11.196	37.724	85.907	1.00	22.87
ATOM	2704	CB	ILE	1044	10.792	37.062	87.270	1.00	21.17
ATOM	2705	CG2	ILE	1044	9.608	36.133	87.104	1.00	21.53
ATOM	2706	CG1	ILE	1044	11.974	36.276	87.867	1.00	17.63
ATOM	2707	CD1	ILE	1044	12.286	34.971	87.181	1.00	15.40
ATOM	2708	C	ILE	1044	10.035	38.501	85.341	1.00	24.71
ATOM	2709	O	ILE	1044	9.645	39.531	85.877	1.00	28.55
ATOM	2710	N	ALA	1045	9.464	37.979	84.264	1.00	25.67
ATOM	2711	CA	ALA	1045	8.337	38.617	83.595	1.00	23.60
ATOM	2712	CB	ALA	1045	8.054	37.908	82.257	1.00	22.64
ATOM	2713	C	ALA	1045	7.090	38.607	84.454	1.00	20.67
ATOM	2714	O	ALA	1045	6.736	37.582	85.012	1.00	20.21
ATOM	2715	N	ALA	1046	6.435	39.755	84.537	1.00	19.31
ATOM	2716	CA	ALA	1046	5.198	39.913	85.278	1.00	20.20
ATOM	2717	CB	ALA	1046	4.766	41.359	85.243	1.00	19.27
ATOM	2718	C	ALA	1046	4.150	39.034	84.617	1.00	21.57
ATOM	2719	O	ALA	1046	4.277	38.668	83.456	1.00	21.51
ATOM	2720	N	PRO	1047	3.063	38.736	85.324	1.00	23.13

ATOM	2721	CD	PRO	1047	2.782	39.114	86.715	1.00	24.25
ATOM	2722	CA	PRO	1047	1.987	37.888	84.796	1.00	24.83
ATOM	2723	CB	PRO	1047	0.951	37.918	85.918	1.00	22.99
ATOM	2724	CG	PRO	1047	1.791	38.068	87.135	1.00	21.48
ATOM	2725	C	PRO	1047	1.371	38.327	83.475	1.00	26.05
ATOM	2726	O	PRO	1047	0.855	37.503	82.726	1.00	27.25
ATOM	2727	N	ASN	1048	1.438	39.621	83.190	1.00	26.31
ATOM	2728	CA	ASN	1048	0.853	40.164	81.968	1.00	27.54
ATOM	2729	CB	ASN	1048	-0.002	41.405	82.273	1.00	33.94
ATOM	2730	CG	ASN	1048	0.825	42.617	82.740	1.00	41.71
ATOM	2731	OD1	ASN	1048	0.488	43.757	82.416	1.00	45.35
ATOM	2732	ND2	ASN	1048	1.890	42.374	83.511	1.00	44.19
ATOM	2733	C	ASN	1048	1.898	40.483	80.917	1.00	26.05
ATOM	2734	O	ASN	1048	1.608	41.163	79.930	1.00	29.16
ATOM	2735	N	GLU	1049	3.125	40.034	81.148	1.00	22.58
ATOM	2736	CA	GLU	1049	4.189	40.268	80.192	1.00	20.92
ATOM	2737	CB	GLU	1049	5.504	40.620	80.879	1.00	20.04
ATOM	2738	CG	GLU	1049	5.550	42.039	81.349	1.00	22.95
ATOM	2739	CD	GLU	1049	6.895	42.442	81.887	1.00	22.05
ATOM	2740	OE1	GLU	1049	7.437	43.442	81.404	1.00	23.42
ATOM	2741	OE2	GLU	1049	7.418	41.772	82.790	1.00	26.52
ATOM	2742	C	GLU	1049	4.342	39.005	79.388	1.00	20.58
ATOM	2743	O	GLU	1049	4.076	37.910	79.888	1.00	20.52
ATOM	2744	N	THR	1050	4.753	39.159	78.140	1.00	19.89
ATOM	2745	CA	THR	1050	4.926	38.014	77.262	1.00	18.35
ATOM	2746	CB	THR	1050	3.722	37.910	76.298	1.00	17.82
ATOM	2747	OG1	THR	1050	3.714	39.065	75.452	1.00	17.61
ATOM	2748	CG2	THR	1050	2.402	37.871	77.060	1.00	17.16
ATOM	2749	C	THR	1050	6.184	38.224	76.413	1.00	17.74
ATOM	2750	O	THR	1050	6.768	39.308	76.410	1.00	16.72
ATOM	2751	N	VAL	1051	6.555	37.197	75.654	1.00	17.85
ATOM	2752	CA	VAL	1051	7.679	37.265	74.736	1.00	15.64
ATOM	2753	CB	VAL	1051	7.745	35.931	73.922	1.00	17.07
ATOM	2754	CG1	VAL	1051	8.290	36.154	72.503	1.00	16.52
ATOM	2755	CG2	VAL	1051	8.560	34.915	74.657	1.00	8.94
ATOM	2756	C	VAL	1051	7.472	38.460	73.783	1.00	16.77
ATOM	2757	O	VAL	1051	8.420	39.161	73.422	1.00	15.38
ATOM	2758	N	SER	1052	6.206	38.712	73.442	1.00	15.51
ATOM	2759	CA	SER	1052	5.843	39.791	72.532	1.00	16.36
ATOM	2760	CB	SER	1052	4.454	39.550	71.941	1.00	15.81
ATOM	2761	OG	SER	1052	4.398	38.265	71.352	1.00	20.04
ATOM	2762	C	SER	1052	5.921	41.189	73.127	1.00	15.93

ATOM	2763	O	SER	1052	6.474	42.093	72.505	1.00	17.16
ATOM	2764	N	THR	1053	5.393	41.380	74.333	1.00	15.23
ATOM	2765	CA	THR	1053	5.452	42.710	74.916	1.00	16.05
ATOM	2766	CB	THR	1053	4.616	42.817	76.222	1.00	15.98
ATOM	2767	OG1	THR	1053	5.149	41.923	77.220	1.00	16.29
ATOM	2768	CG2	THR	1053	3.147	42.458	75.958	1.00	13.23
ATOM	2769	C	THR	1053	6.909	43.075	75.188	1.00	15.47
ATOM	2770	O	THR	1053	7.331	44.208	74.932	1.00	17.21
ATOM	2771	N	MET	1054	7.678	42.104	75.673	1.00	14.52
ATOM	2772	CA	MET	1054	9.085	42.335	75.960	1.00	16.75
ATOM	2773	CB	MET	1054	9.714	41.146	76.701	1.00	17.75
ATOM	2774	CG	MET	1054	9.186	40.860	78.104	1.00	17.51
ATOM	2775	SD	MET	1054	10.261	39.679	78.938	1.00	20.58
ATOM	2776	CE	MET	1054	10.246	38.296	77.797	1.00	18.34
ATOM	2777	C	MET	1054	9.842	42.567	74.662	1.00	17.53
ATOM	2778	O	MET	1054	10.780	43.365	74.626	1.00	19.11
ATOM	2779	N	GLY	1055	9.484	41.807	73.627	1.00	15.09
ATOM	2780	CA	GLY	1055	10.132	41.947	72.340	1.00	15.19
ATOM	2781	C	GLY	1055	9.844	43.327	71.783	1.00	16.10
ATOM	2782	O	GLY	1055	10.714	43.939	71.172	1.00	18.11
ATOM	2783	N	PHE	1056	8.630	43.821	72.017	1.00	17.80
ATOM	2784	CA	PHE	1056	8.222	45.150	71.567	1.00	20.55
ATOM	2785	CB	PHE	1056	6.739	45.385	71.872	1.00	20.68
ATOM	2786	CG	PHE	1056	6.310	46.826	71.748	1.00	26.35
ATOM	2787	CD1	PHE	1056	6.140	47.419	70.487	1.00	23.04
ATOM	2788	CD2	PHE	1056	6.074	47.596	72.900	1.00	26.54
ATOM	2789	CE1	PHE	1056	5.740	48.755	70.372	1.00	23.08
ATOM	2790	CE2	PHE	1056	5.675	48.940	72.797	1.00	26.62
ATOM	2791	CZ	PHE	1056	5.509	49.521	71.528	1.00	25.35
ATOM	2792	C	PHE	1056	9.071	46.237	72.230	1.00	20.55
ATOM	2793	O	PHE	1056	9.446	47.218	71.586	1.00	19.97
ATOM	2794	N	GLU	1057	9.368	46.072	73.517	1.00	20.95
ATOM	2795	CA	GLU	1057	10.207	47.033	74.251	1.00	19.86
ATOM	2796	CB	GLU	1057	10.257	46.665	75.737	1.00	20.09
ATOM	2797	CG	GLU	1057	8.889	46.675	76.412	1.00	19.40
ATOM	2798	CD	GLU	1057	8.222	48.042	76.362	1.00	25.62
ATOM	2799	OE1	GLU	1057	6.986	48.088	76.576	1.00	23.69
ATOM	2800	OE2	GLU	1057	8.929	49.063	76.117	1.00	27.45
ATOM	2801	C	GLU	1057	11.626	47.072	73.711	1.00	18.64
ATOM	2802	O	GLU	1057	12.179	48.142	73.434	1.00	19.48
ATOM	2803	N	ALA	1058	12.217	45.895	73.571	1.00	17.27
ATOM	2804	CA	ALA	1058	13.570	45.784	73.060	1.00	17.35

ATOM	2805	CB	ALA	1058	14.002	44.346	73.076	1.00	15.74
ATOM	2806	C	ALA	1058	13.645	46.349	71.646	1.00	19.81
ATOM	2807	O	ALA	1058	14.617	47.030	71.299	1.00	22.24
ATOM	2808	N	ALA	1059	12.612	46.075	70.837	1.00	19.28
ATOM	2809	CA	ALA	1059	12.537	46.545	69.444	1.00	19.89
ATOM	2810	CB	ALA	1059	11.351	45.916	68.730	1.00	18.65
ATOM	2811	C	ALA	1059	12.443	48.065	69.384	1.00	21.83
ATOM	2812	O	ALA	1059	13.149	48.696	68.602	1.00	24.26
ATOM	2813	N	THR	1060	11.585	48.646	70.223	1.00	22.23
ATOM	2814	CA	THR	1060	11.393	50.097	70.304	1.00	20.13
ATOM	2815	CB	THR	1060	10.414	50.433	71.451	1.00	19.83
ATOM	2816	OG1	THR	1060	9.074	50.099	71.065	1.00	20.93
ATOM	2817	CG2	THR	1060	10.493	51.873	71.837	1.00	20.03
ATOM	2818	C	THR	1060	12.735	50.780	70.553	1.00	20.22
ATOM	2819	O	THR	1060	13.080	51.760	69.901	1.00	18.84
ATOM	2820	N	ARG	1061	13.504	50.205	71.467	1.00	22.74
ATOM	2821	CA	ARG	1061	14.809	50.720	71.834	1.00	24.41
ATOM	2822	CB	ARG	1061	15.282	50.030	73.111	1.00	28.48
ATOM	2823	CG	ARG	1061	14.390	50.391	74.283	1.00	33.03
ATOM	2824	CD	ARG	1061	14.662	49.636	75.572	1.00	35.66
ATOM	2825	NE	ARG	1061	13.499	49.775	76.455	1.00	39.67
ATOM	2826	CZ	ARG	1061	13.496	49.532	77.759	1.00	40.69
ATOM	2827	NH1	ARG	1061	12.376	49.693	78.455	1.00	41.59
ATOM	2828	NH2	ARG	1061	14.601	49.103	78.362	1.00	43.47
ATOM	2829	C	ARG	1061	15.825	50.589	70.722	1.00	22.90
ATOM	2830	O	ARG	1061	16.639	51.486	70.496	1.00	23.06
ATOM	2831	N	ALA	1062	15.721	49.495	69.985	1.00	23.53
ATOM	2832	CA	ALA	1062	16.615	49.236	68.869	1.00	24.14
ATOM	2833	CB	ALA	1062	16.488	47.776	68.421	1.00	22.71
ATOM	2834	C	ALA	1062	16.345	50.192	67.696	1.00	24.74
ATOM	2835	O	ALA	1062	17.286	50.739	67.112	1.00	24.64
ATOM	2836	N	ILE	1063	15.079	50.389	67.330	1.00	26.78
ATOM	2837	CA	ILE	1063	14.780	51.309	66.231	1.00	29.97
ATOM	2838	CB	ILE	1063	13.329	51.160	65.622	1.00	32.40
ATOM	2839	CG2	ILE	1063	12.687	49.817	65.959	1.00	28.11
ATOM	2840	CG1	ILE	1063	12.440	52.318	66.044	1.00	33.83
ATOM	2841	CD1	ILE	1063	11.080	52.294	65.368	1.00	39.03
ATOM	2842	C	ILE	1063	15.060	52.752	66.667	1.00	31.96
ATOM	2843	O	ILE	1063	15.288	53.630	65.829	1.00	31.29
ATOM	2844	N	GLU	1064	15.037	52.985	67.977	1.00	33.88
ATOM	2845	CA	GLU	1064	15.332	54.297	68.556	1.00	36.83
ATOM	2846	CB	GLU	1064	15.125	54.271	70.078	1.00	43.74

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ATOM	2847	CG	GLU	1064	15.478	55.583	70.796	1.00	52.34
ATOM	2848	CD	GLU	1064	14.361	56.612	70.748	1.00	60.41
ATOM	2849	OE1	GLU	1064	14.653	57.803	70.482	1.00	61.87
ATOM	2850	OE2	GLU	1064	13.185	56.228	70.970	1.00	64.43
ATOM	2851	C	GLU	1064	16.796	54.607	68.238	1.00	35.47
ATOM	2852	O	GLU	1064	17.128	55.699	67.782	1.00	36.64
ATOM	2853	N	MET	1065	17.675	53.641	68.483	1.00	32.31
ATOM	2854	CA	MET	1065	19.098	53.817	68.195	1.00	30.79
ATOM	2855	CB	MET	1065	19.879	52.681	68.848	1.00	28.96
ATOM	2856	CG	MET	1065	21.400	52.816	68.706	1.00	27.32
ATOM	2857	SD	MET	1065	22.248	51.301	69.184	1.00	29.13
ATOM	2858	CE	MET	1065	23.821	51.631	68.502	1.00	34.58
ATOM	2859	C	MET	1065	19.373	53.852	66.675	1.00	30.15
ATOM	2860	O	MET	1065	20.280	54.541	66.219	1.00	29.65
ATOM	2861	N	ALA	1066	18.612	53.065	65.917	1.00	28.90
ATOM	2862	CA	ALA	1066	18.751	52.978	64.459	1.00	27.19
ATOM	2863	CB	ALA	1066	17.810	51.921	63.910	1.00	22.47
ATOM	2864	C	ALA	1066	18.426	54.319	63.832	1.00	28.69
ATOM	2865	O	ALA	1066	18.941	54.665	62.772	1.00	26.45
ATOM	2866	N	GLY	1067	17.530	55.052	64.481	1.00	30.46
ATOM	2867	CA	GLY	1067	17.134	56.353	63.987	1.00	31.28
ATOM	2868	C	GLY	1067	16.203	56.262	62.791	1.00	32.57
ATOM	2869	O	GLY	1067	15.907	57.277	62.161	1.00	33.80
ATOM	2870	N	ILE	1068	15.711	55.063	62.488	1.00	30.08
ATOM	2871	CA	ILE	1068	14.822	54.874	61.350	1.00	27.81
ATOM	2872	CB	ILE	1068	14.979	53.460	60.731	1.00	26.71
ATOM	2873	CG2	ILE	1068	16.421	53.203	60.356	1.00	25.79
ATOM	2874	CG1	ILE	1068	14.481	52.392	61.706	1.00	26.08
ATOM	2875	CD1	ILE	1068	14.160	51.078	61.050	1.00	26.50
ATOM	2876	C	ILE	1068	13.365	55.045	61.738	1.00	28.87
ATOM	2877	O	ILE	1068	13.044	55.169	62.918	1.00	27.30
ATOM	2878	N	GLU	1069	12.500	55.085	60.727	1.00	29.50
ATOM	2879	CA	GLU	1069	11.059	55.157	60.930	1.00	31.27
ATOM	2880	CB	GLU	1069	10.376	55.874	59.766	1.00	35.26
ATOM	2881	CG	GLU	1069	10.564	57.379	59.737	1.00	45.16
ATOM	2882	CD	GLU	1069	9.857	58.083	60.887	1.00	51.06
ATOM	2883	OE1	GLU	1069	10.503	58.942	61.531	1.00	55.40
ATOM	2884	OE2	GLU	1069	8.659	57.788	61.139	1.00	53.86
ATOM	2885	C	GLU	1069	10.619	53.693	60.927	1.00	30.27
ATOM	2886	O	GLU	1069	11.036	52.927	60.058	1.00	30.04
ATOM	2887	N	LYS	1070	9.779	53.302	61.877	1.00	28.44
ATOM	2888	CA	LYS	1070	9.312	51.924	61.942	1.00	29.27

ATOM	2889	CB	LYS	1070	8.347	51.740	63.108	1.00	31.81
ATOM	2890	CG	LYS	1070	7.094	52.585	63.006	1.00	37.17
ATOM	2891	CD	LYS	1070	6.280	52.530	64.286	1.00	42.80
ATOM	2892	CE	LYS	1070	7.116	52.951	65.485	1.00	45.67
ATOM	2893	NZ	LYS	1070	6.306	53.061	66.727	1.00	50.30
ATOM	2894	C	LYS	1070	8.613	51.585	60.645	1.00	28.90
ATOM	2895	O	LYS	1070	8.441	50.433	60.305	1.00	29.02
ATOM	2896	N	ASP	1071	8.216	52.623	59.929	1.00	30.70
ATOM	2897	CA	ASP	1071	7.527	52.501	58.655	1.00	33.00
ATOM	2898	CB	ASP	1071	7.200	53.908	58.149	1.00	40.98
ATOM	2899	CG	ASP	1071	5.775	54.043	57.688	1.00	50.69
ATOM	2900	OD1	ASP	1071	4.994	53.081	57.887	1.00	54.00
ATOM	2901	OD2	ASP	1071	5.434	55.118	57.134	1.00	56.42
ATOM	2902	C	ASP	1071	8.388	51.808	57.608	1.00	30.49
ATOM	2903	O	ASP	1071	7.873	51.161	56.700	1.00	28.62
ATOM	2904	N	GLN	1072	9.701	51.987	57.743	1.00	28.42
ATOM	2905	CA	GLN	1072	10.704	51.452	56.831	1.00	26.92
ATOM	2906	CB	GLN	1072	11.949	52.324	56.894	1.00	32.42
ATOM	2907	CG	GLN	1072	11.715	53.741	56.432	1.00	41.81
ATOM	2908	CD	GLN	1072	12.999	54.421	56.025	1.00	49.94
ATOM	2909	OE1	GLN	1072	13.612	55.143	56.824	1.00	53.54
ATOM	2910	NE2	GLN	1072	13.431	54.184	54.775	1.00	53.33
ATOM	2911	C	GLN	1072	11.131	50.013	57.026	1.00	24.47
ATOM	2912	O	GLN	1072	11.933	49.493	56.255	1.00	23.42
ATOM	2913	N	ILE	1073	10.630	49.381	58.075	1.00	23.70
ATOM	2914	CA	ILE	1073	10.986	48.005	58.371	1.00	20.46
ATOM	2915	CB	ILE	1073	10.595	47.643	59.824	1.00	17.66
ATOM	2916	CG2	ILE	1073	10.810	46.149	60.094	1.00	13.77
ATOM	2917	CG1	ILE	1073	11.403	48.522	60.782	1.00	20.58
ATOM	2918	CD1	ILE	1073	11.024	48.372	62.237	1.00	21.78
ATOM	2919	C	ILE	1073	10.344	47.069	57.348	1.00	18.57
ATOM	2920	O	ILE	1073	9.138	47.119	57.111	1.00	18.86
ATOM	2921	N	GLY	1074	11.174	46.238	56.727	1.00	16.25
ATOM	2922	CA	GLY	1074	10.687	45.309	55.730	1.00	14.86
ATOM	2923	C	GLY	1074	10.693	43.835	56.079	1.00	14.28
ATOM	2924	O	GLY	1074	10.356	43.005	55.222	1.00	13.02
ATOM	2925	N	LEU	1075	11.068	43.495	57.313	1.00	15.66
ATOM	2926	CA	LEU	1075	11.091	42.096	57.759	1.00	14.65
ATOM	2927	CB	LEU	1075	12.257	41.322	57.114	1.00	14.05
ATOM	2928	CG	LEU	1075	12.572	39.892	57.588	1.00	15.67
ATOM	2929	CD1	LEU	1075	11.514	38.940	57.120	1.00	12.16
ATOM	2930	CD2	LEU	1075	13.938	39.448	57.086	1.00	12.89

ATOM	2931	C	LEU	1075	11.262	42.050	59.259	1.00	14.88
ATOM	2932	O	LEU	1075	12.082	42.785	59.796	1.00	13.53
ATOM	2933	N	ILE	1076	10.463	41.222	59.928	1.00	15.72
ATOM	2934	CA	ILE	1076	10.564	41.042	61.385	1.00	16.59
ATOM	2935	CB	ILE	1076	9.296	41.558	62.150	1.00	15.08
ATOM	2936	CG2	ILE	1076	9.373	41.172	63.639	1.00	12.54
ATOM	2937	CG1	ILE	1076	9.150	43.083	61.983	1.00	12.76
ATOM	2938	CD1	ILE	1076	7.774	43.594	62.375	1.00	11.24
ATOM	2939	C	ILE	1076	10.751	39.541	61.659	1.00	16.33
ATOM	2940	O	ILE	1076	9.943	38.718	61.215	1.00	15.95
ATOM	2941	N	VAL	1077	11.869	39.178	62.283	1.00	16.07
ATOM	2942	CA	VAL	1077	12.115	37.778	62.628	1.00	16.86
ATOM	2943	CB	VAL	1077	13.425	37.225	61.980	1.00	19.11
ATOM	2944	CG1	VAL	1077	13.485	35.691	62.122	1.00	16.53
ATOM	2945	CG2	VAL	1077	13.501	37.628	60.519	1.00	18.56
ATOM	2946	C	VAL	1077	12.275	37.709	64.156	1.00	13.68
ATOM	2947	O	VAL	1077	13.076	38.440	64.722	1.00	13.30
ATOM	2948	N	VAL	1078	11.489	36.876	64.816	1.00	12.96
ATOM	2949	CA	VAL	1078	11.609	36.730	66.256	1.00	12.02
ATOM	2950	CB	VAL	1078	10.270	36.992	66.992	1.00	12.92
ATOM	2951	CG1	VAL	1078	10.476	36.914	68.507	1.00	13.44
ATOM	2952	CG2	VAL	1078	9.707	38.347	66.622	1.00	14.23
ATOM	2953	C	VAL	1078	12.067	35.322	66.590	1.00	13.26
ATOM	2954	O	VAL	1078	11.473	34.350	66.151	1.00	13.44
ATOM	2955	N	ALA	1079	13.177	35.216	67.305	1.00	13.71
ATOM	2956	CA	ALA	1079	13.690	33.936	67.745	1.00	13.68
ATOM	2957	CB	ALA	1079	15.177	34.009	67.897	1.00	9.44
ATOM	2958	C	ALA	1079	13.051	33.748	69.119	1.00	16.48
ATOM	2959	O	ALA	1079	13.285	34.559	70.019	1.00	17.12
ATOM	2960	N	THR	1080	12.230	32.712	69.267	1.00	17.68
ATOM	2961	CA	THR	1080	11.547	32.399	70.527	1.00	17.74
ATOM	2962	CB	THR	1080	10.211	33.160	70.680	1.00	18.69
ATOM	2963	OG1	THR	1080	10.393	34.545	70.406	1.00	32.25
ATOM	2964	CG2	THR	1080	9.711	33.050	72.073	1.00	11.91
ATOM	2965	C	THR	1080	11.147	30.926	70.520	1.00	18.01
ATOM	2966	O	THR	1080	10.990	30.326	69.462	1.00	18.35
ATOM	2967	N	THR	1081	10.986	30.363	71.713	1.00	16.57
ATOM	2968	CA	THR	1081	10.526	28.996	71.891	1.00	15.93
ATOM	2969	CB	THR	1081	11.697	27.984	72.165	1.00	16.97
ATOM	2970	OG1	THR	1081	12.683	28.582	73.023	1.00	22.52
ATOM	2971	CG2	THR	1081	12.359	27.549	70.862	1.00	13.43
ATOM	2972	C	THR	1081	9.547	29.042	73.079	1.00	15.87

ATOM	2973	O	THR	1081	9.183	28.005	73.652	1.00	17.41
ATOM	2974	N	SER	1082	9.098	30.247	73.423	1.00	14.03
ATOM	2975	CA	SER	1082	8.184	30.418	74.549	1.00	16.83
ATOM	2976	CB	SER	1082	8.982	30.681	75.832	1.00	12.15
ATOM	2977	OG	SER	1082	9.860	31.798	75.667	1.00	12.75
ATOM	2978	C	SER	1082	7.107	31.488	74.364	1.00	18.83
ATOM	2979	O	SER	1082	6.630	32.076	75.342	1.00	19.69
ATOM	2980	N	ALA	1083	6.688	31.700	73.120	1.00	18.91
ATOM	2981	CA	ALA	1083	5.654	32.687	72.833	1.00	18.28
ATOM	2982	CB	ALA	1083	5.612	32.999	71.333	1.00	17.95
ATOM	2983	C	ALA	1083	4.300	32.158	73.316	1.00	17.90
ATOM	2984	O	ALA	1083	4.139	30.960	73.533	1.00	20.69
ATOM	2985	N	THR	1084	3.338	33.051	73.509	1.00	17.49
ATOM	2986	CA	THR	1084	2.032	32.623	73.994	1.00	16.59
ATOM	2987	CB	THR	1084	1.183	33.806	74.510	1.00	15.03
ATOM	2988	OG1	THR	1084	0.952	34.749	73.463	1.00	16.18
ATOM	2989	CG2	THR	1084	1.892	34.515	75.633	1.00	15.20
ATOM	2990	C	THR	1084	1.201	31.823	73.011	1.00	16.03
ATOM	2991	O	THR	1084	0.425	30.968	73.426	1.00	16.49
ATOM	2992	N	HIS	1085	1.368	32.085	71.715	1.00	15.49
ATOM	2993	CA	HIS	1085	0.582	31.389	70.704	1.00	13.68
ATOM	2994	CB	HIS	1085	-0.431	32.342	70.067	1.00	14.46
ATOM	2995	CG	HIS	1085	-1.390	32.972	71.036	1.00	19.37
ATOM	2996	CD2	HIS	1085	-2.666	32.664	71.350	1.00	19.36
ATOM	2997	ND1	HIS	1085	-1.073	34.093	71.777	1.00	17.30
ATOM	2998	CE1	HIS	1085	-2.115	34.445	72.505	1.00	15.81
ATOM	2999	NE2	HIS	1085	-3.094	33.597	72.268	1.00	15.63
ATOM	3000	C	HIS	1085	1.434	30.830	69.572	1.00	15.54
ATOM	3001	O	HIS	1085	2.426	31.444	69.161	1.00	13.22
ATOM	3002	N	ALA	1086	0.995	29.680	69.057	1.00	16.36
ATOM	3003	CA	ALA	1086	1.624	29.022	67.907	1.00	17.11
ATOM	3004	CB	ALA	1086	0.933	27.702	67.641	1.00	13.76
ATOM	3005	C	ALA	1086	1.360	30.032	66.774	1.00	18.04
ATOM	3006	O	ALA	1086	2.223	30.284	65.929	1.00	19.01
ATOM	3007	N	PHE	1087	0.118	30.521	66.721	1.00	16.05
ATOM	3008	CA	PHE	1087	-0.254	31.597	65.800	1.00	15.49
ATOM	3009	CB	PHE	1087	-0.539	31.168	64.330	1.00	10.60
ATOM	3010	CG	PHE	1087	-1.559	30.100	64.167	1.00	9.77
ATOM	3011	CD1	PHE	1087	-1.169	28.788	63.944	1.00	11.44
ATOM	3012	CD2	PHE	1087	-2.916	30.410	64.157	1.00	12.27
ATOM	3013	CE1	PHE	1087	-2.109	27.796	63.715	1.00	10.46
ATOM	3014	CE2	PHE	1087	-3.878	29.416	63.925	1.00	11.90

ATOM	3015	CZ	PHE	1087	-3.477	28:111	63.705	1.00	9.96
ATOM	3016	C	PHE	1087	-1.381	32.376	66.460	1.00	13.45
ATOM	3017	O	PHE	1087	-2.233	31.776	67.132	1.00	15.58
ATOM	3018	N	PRO	1088	-1.346	33.728	66.398	1.00	12.07
ATOM	3019	CD	PRO	1088	-2.313	34.553	67.123	1.00	11.12
ATOM	3020	CA	PRO	1088	-0.338	34.594	65.746	1.00	13.08
ATOM	3021	CB	PRO	1088	-0.888	35.994	66.002	1.00	12.69
ATOM	3022	CG	PRO	1088	-1.534	35.833	67.334	1.00	14.73
ATOM	3023	C	PRO	1088	1.037	34.477	66.346	1.00	14.07
ATOM	3024	O	PRO	1088	1.187	34.359	67.557	1.00	16.75
ATOM	3025	N	SER	1089	2.050	34.516	65.485	1.00	13.16
ATOM	3026	CA	SER	1089	3.414	34.412	65.961	1.00	14.84
ATOM	3027	CB	SER	1089	4.354	34.303	64.777	1.00	13.55
ATOM	3028	OG	SER	1089	4.314	35.501	64.027	1.00	18.22
ATOM	3029	C	SER·	1089	3.785	35.653	66.791	1.00	16.73
ATOM	3030	O	SER	1089	3.108	36.693	66.720	1.00	17.44
ATOM	3031	N	ALA	1090	4.887	35.563	67.539	1.00	17.57
ATOM	3032	CA	ALA	1090	5.346	36.698	68.341	1.00	16.37
ATOM	3033	CB	ALA	1090	6.595	36.307	69.175	1.00	12.74
ATOM	3034	C	ALA	1090	5.660	37.857	67.391	1.00	14.91
ATOM	3035	O	ALA	1090	5.365	39.006	67.692	1.00	16.61
ATOM	3036	N	ALA	1091	6.220	37.532	66.222	1.00	17.72
ATOM	3037	CA	ALA	1091	6.560	38.530	65.191	1.00	14.04
ATOM	3038	CB	ALA	1091	7.189	37.862	63.990	1.00	15.96
ATOM	3039	C	ALA	1091	5.329	39.305	64.750	1.00	11.88
ATOM	3040	O	ALA	1091	5.376	40.535	64.605	1.00	13.30
ATOM	3041	N	CYS	1092	4.233	38.590	64.513	1.00	11.65
ATOM	3042	CA	CYS	1092	2.984	39.236	64.109	1.00	10.81
ATOM	3043	CB	CYS	1092	1.930	38.209	63.712	1.00	10.31
ATOM	3044	SG	CYS	1092	2.213	37.522	62.066	1.00	15.94
ATOM	3045	C	CYS	1092	2.455	40.109	65.239	1.00	13.07
ATOM	3046	O	CYS	1092	2.037	41.250	65.007	1.00	12.54
ATOM	3047	N	GLN	1093	2.505	39.587	66.463	1.00	12.72
ATOM	3048	CA	GLN	1093	2.033	40.328	67.616	1.00	13.91
ATOM	3049	CB	GLN	1093	2.063	39.449	68.869	1.00	16.55
ATOM	3050	CG	GLN	1093	1.043	38.300	68.813	1.00	17.95
ATOM	3051	CD	GLN	1093	1.050	37.399	70.044	1.00	17.89
ATOM	3052	OE1	GLN	1093	2.103	36.991	70.530	1.00	17.32
ATOM	3053	NE2	GLN	1093	-0.139	37.035	70.517	1.00	13.75
ATOM	3054	C	GLN	1093	2.837	41.596	67.810	1.00	13.00
ATOM	3055	O	GLN	1093	2.264	42.665	68.021	1.00	14.61
ATOM	3056	N	ILE	1094	4.157	41.507	67.665	1.00	14.90

ATOM	3057	CA	ILE	1094	5.018	42.685	67.819	1.00	15.56
ATOM	3058	CB	ILE	1094	6.518	42.292	67.926	1.00	16.35
ATOM	3059	CG2	ILE	1094	7.411	43.545	67.921	1.00	14.90
ATOM	3060	CG1	ILE	1094	6.743	41.477	69.213	1.00	14.78
ATOM	3061	CD1	ILE	1094	8.190	41.044	69.443	1.00	11.20
ATOM	3062	C	ILE	1094	4.789	43.696	66.683	1.00	16.99
ATOM	3063	O	ILE	1094	4.752	44.906	66.917	1.00	18.92
ATOM	3064	N	GLN	1095	4.578	43.194	65.464	1.00	18.86
ATOM	3065	CA	GLN	1095	4.323	44.042	64.297	1.00	16.94
ATOM	3066	CB	GLN	1095	4.095	43.163	63.061	1.00	17.32
ATOM	3067	CG	GLN	1095	3.851	43.944	61.777	1.00	17.71
ATOM	3068	CD	GLN	1095	3.342	43.071	60.652	1.00	18.41
ATOM	3069	OE1	GLN	1095	2.330	42.382	60.798	1.00	18.03
ATOM	3070	NE2	GLN	1095	4.043	43.088	59.521	1.00	16.13
ATOM	3071	C	GLN	1095	3.096	44.913	64.561	1.00	16.43
ATOM	3072	O	GLN	1095	3.087	46.107	64.256	1.00	19.34
ATOM	3073	N	SER	1096	2.060	44.304	65.126	1.00	15.81
ATOM	3074	CA	SER	1096	0.830	45.019	65.456	1.00	17.07
ATOM	3075	CB	SER	1096	−0.243	44.036	65.926	1.00	16.75
ATOM	3076	OG	SER	1096	−1.480	44.692	66.103	1.00	18.10
ATOM	3077	C	SER	1096	1.102	46.020	66.564	1.00	18.52
ATOM	3078	O	SER	1096	0.579	47.143	66.553	1.00	16.80
ATOM	3079	N	MET	1097	1.928	45.613	67.524	1.00	19.96
ATOM	3080	CA	MET	1097	2.254	46.491	68.647	1.00	20.74
ATOM	3081	CB	MET	1097	3.081	45.763	69.702	1.00	19.09
ATOM	3082	CG	MET	1097	2.273	44.902	70.654	1.00	17.14
ATOM	3083	SD	MET	1097	3.330	43.877	71.718	1.00	19.07
ATOM	3084	CE	MET	1097	2.237	42.501	72.078	1.00	14.77
ATOM	3085	C	MET	1097	3.000	47.712	68.148	1.00	22.88
ATOM	3086	O	MET	1097	2.860	48.806	68.709	1.00	23.35
ATOM	3087	N	LEU	1098	3.793	47.528	67.092	1.00	22.62
ATOM	3088	CA	LEU	1098	4.562	48.621	66.488	1.00	20.86
ATOM	3089	CB	LEU	1098	5.817	48.064	65.818	1.00	19.75
ATOM	3090	CG	LEU	1098	6.924	47.639	66.789	1.00	24.08
ATOM	3091	CD1	LEU	1098	7.817	46.581	66.166	1.00	24.14
ATOM	3092	CD2	LEU	1098	7.744	48.854	67.194	1.00	23.61
ATOM	3093	C	LEU	1098	3.738	49.456	65.499	1.00	20.59
ATOM	3094	O	LEU	1098	4.215	50.449	64.968	1.00	19.94
ATOM	3095	N	GLY	1099	2.500	49.051	65.248	1.00	21.78
ATOM	3096	CA	GLY	1099	1.653	49.798	64.339	1.00	24.06
ATOM	3097	C	GLY	1099	2.074	49.748	62.881	1.00	27.23
ATOM	3098	O	GLY	1099	1.890	50.722	62.141	1.00	29.93

ATOM	3099	N	ILE	1100	2.639	48.622	62.459	1.00	26.73
ATOM	3100	CA	ILE	1100	3.058	48.480	61.075	1.00	25.37
ATOM	3101	CB	ILE	1100	4.603	48.407	60.943	1.00	27.92
ATOM	3102	CG2	ILE	1100	5.201	49.792	61.180	1.00	30.07
ATOM	3103	CG1	ILE	1100	5.199	47.427	61.957	1.00	32.70
ATOM	3104	CD1	ILE	1100	6.736	47.472	62.027	1.00	30.74
ATOM	3105	C	ILE	1100	2.330	47.302	60.431	1.00	23.94
ATOM	3106	O	ILE	1100	1.999	46.316	61.102	1.00	21.42
ATOM	3107	N	LYS	1101	2.013	47.453	59.145	1.00	22.08
ATOM	3108	CA	LYS	1101	1.268	46.454	58.385	1.00	21.78
ATOM	3109	CB	LYS	1101	-0.121	46.994	58.059	1.00	22.25
ATOM	3110	CG	LYS	1101	-0.954	47.383	59.262	1.00	25.34
ATOM	3111	CD	LYS	1101	-1.999	48.416	58.854	1.00	32.31
ATOM	3112	CE	LYS	1101	-3.204	48.426	59.788	1.00	35.23
ATOM	3113	NZ	LYS	1101	-4.197	47.363	59.410	1.00	37.35
ATOM	3114	C	LYS	1101	1.950	46.123	57.066	1.00	21.25
ATOM	3115	O	LYS	1101	2.561	47.000	56.450	1.00	20.54
ATOM	3116	N	GLY	1102	1.910	44.848	56.684	1.00	18.33
ATOM	3117	CA	GLY	1102	2.468	44.439	55.412	1.00	16.85
ATOM	3118	C	GLY	1102	3.742	43.624	55.352	1.00	16.53
ATOM	3119	O	GLY	1102	3.788	42.584	54.692	1.00	17.78
ATOM	3120	N	CYS	1103	4.779	44.065	56.047	1.00	14.38
ATOM	3121	CA	CYS	1103	6.047	43.364	55.984	1.00	15.11
ATOM	3122	CB	CYS	1103	7.159	44.191	56.664	1.00	15.29
ATOM	3123	SG	CYS	1103	7.231	44.106	58.480	1.00	16.49
ATOM	3124	C	CYS	1103	5.956	41.941	56.563	1.00	15.30
ATOM	3125	O	CYS	1103	5.096	41.646	57.399	1.00	16.85
ATOM	3126	N	PRO	1104	6.757	41.017	56.027	1.00	15.40
ATOM	3127	CD	PRO	1104	7.616	41.126	54.835	1.00	17.76
ATOM	3128	CA	PRO	1104	6.739	39.647	56.526	1.00	15.73
ATOM	3129	CB	PRO	1104	7.739	38.924	55.611	1.00	13.36
ATOM	3130	CG	PRO	1104	8.599	40.024	55.067	1.00	16.49
ATOM	3131	C	PRO	1104	7.171	39.612	57.991	1.00	14.26
ATOM	3132	O	PRO	1104	8.023	40.398	58.420	1.00	15.10
ATOM	3133	N	ALA	1105	6.536	38.726	58.746	1.00	14.50
ATOM	3134	CA	ALA	1105	6.806	38.557	60.165	1.00	14.88
ATOM	3135	CB	ALA	1105	5.813	39.405	60.991	1.00	13.55
ATOM	3136	C	ALA	1105	6.635	37.075	60.476	1.00	13.61
ATOM	3137	O	ALA	1105	5.622	36.485	60.102	1.00	15.44
ATOM	3138	N	PHE	1106	7.642	36.467	61.101	1.00	11.09
ATOM	3139	CA	PHE	1106	7.586	35.049	61.446	1.00	12.44
ATOM	3140	CB	PHE	1106	7.871	34.147	60.217	1.00	13.72

ATOM	3141	CG	PHE	1106	9.268	34.321	59.607	1.00	12.16
ATOM	3142	CD1	PHE	1106	9.532	35.362	58.716	1.00	11.18
ATOM	3143	CD2	PHE	1106	10.297	33.426	59.916	1.00	8.94
ATOM	3144	CE1	PHE	1106	10.792	35.504	58.147	1.00	11.54
ATOM	3145	CE2	PHE	1106	11.554	33.555	59.359	1.00	9.27
ATOM	3146	CZ	PHE	1106	11.810	34.596	58.471	1.00	9.65
ATOM	3147	C	PHE	1106	8.571	34.755	62.555	1.00	11.52
ATOM	3148	O	PHE	1106	9.450	35.557	62.834	1.00	11.34
ATOM	3149	N	ASP	1107	8.405	33.600	63.192	1.00	13.83
ATOM	3150	CA	ASP	1107	9.272	33.196	64.291	1.00	13.66
ATOM	3151	CB	ASP	1107	8.454	32.790	65.543	1.00	14.45
ATOM	3152	CG	ASP	1107	7.689	33.955	66.184	1.00	14.75
ATOM	3153	OD1	ASP	1107	7.792	35.119	65.753	1.00	18.78
ATOM	3154	OD2	ASP	1107	6.928	33.682	67.120	1.00	13.65
ATOM	3155	C	ASP	1107	10.153	32.036	63.876	1.00	13.20
ATOM	3156	O	ASP	1107	9.771	31.217	63.043	1.00	12.78
ATOM	3157	N	VAL	1108	11.313	31.961	64.519	1.00	15.06
ATOM	3158	CA	VAL	1108	12.323	30.926	64.298	1.00	15.79
ATOM	3159	CB	VAL	1108	13.639	31.578	63.818	1.00	15.69
ATOM	3160	CG1	VAL	1108	14.841	30.651	64.059	1.00	18.31
ATOM	3161	CG2	VAL	1108	13.508	31.906	62.328	1.00	16.12
ATOM	3162	C	VAL	1108	12.554	30.163	65.615	1.00	16.22
ATOM	3163	O	VAL	1108	12.647	30.777	66.684	1.00	13.76
ATOM	3164	N	ALA	1109	12.558	28.831	65.550	1.00	14.29
ATOM	3165	CA	ALA	1109	12.785	28.008	66.744	1.00	13.90
ATOM	3166	CB	ALA	1109	11.657	26.985	66.921	1.00	11.68
ATOM	3167	C	ALA	1109	14.139	27.299	66.690	1.00	15.25
ATOM	3168	O	ALA	1109	14.356	26.401	65.859	1.00	18.13
ATOM	3169	N	ALA	1110	15.065	27.735	67.536	1.00	12.79
ATOM	3170	CA	ALA	1110	16.390	27.142	67.626	1.00	13.16
ATOM	3171	CB	ALA	1110	17.361	27.775	66.607	1.00	9.29
ATOM	3172	C	ALA	1110	16.886	27.314	69.080	1.00	14.79
ATOM	3173	O	ALA	1110	18.082	27.515	69.355	1.00	11.69
ATOM	3174	N	ALA	1111	15.937	27.213	70.006	1.00	16.50
ATOM	3175	CA	ALA	1111	16.220	27.320	71.433	1.00	16.45
ATOM	3176	CB	ALA	1111	16.836	26.017	71.919	1.00	16.33
ATOM	3177	C	ALA	1111	17.108	28.502	71.820	1.00	16.31
ATOM	3178	O	ALA	1111	16.885	29.635	71.381	1.00	15.87
ATOM	3179	N	CYS	1112	18.110	28.244	72.653	1.00	16.88
ATOM	3180	CA	CYS	1112	19.010	29.299	73.107	1.00	17.36
ATOM	3181	CB	CYS	1112	19.896	28.812	74.267	1.00	17.87
ATOM	3182	SG	CYS	1112	19.004	28.439	75.802	1.00	21.26

ATOM	3183	C	CYS	1112	19.872	29.856	72.003	1.00	17.51
ATOM	3184	O	CYS	1112	20.453	30.916	72.168	1.00	19.39
ATOM	3185	N	ALA	1113	19.988	29.129	70.893	1.00	19.10
ATOM	3186	CA	ALA	1113	20.782	29.596	69.754	1.00	18.38
ATOM	3187	CB	ALA	1113	21.389	28.420	69.030	1.00	16.70
ATOM	3188	C	ALA	1113	19.918	30.417	68.782	1.00	19.21
ATOM	3189	O	ALA	1113	20.407	30.908	67.756	1.00	16.93
ATOM	3190	N	GLY	1114	18.639	30.563	69.133	1.00	20.22
ATOM	3191	CA	GLY	1114	17.661	31.263	68.320	1.00	18.76
ATOM	3192	C	GLY	1114	18.081	32.574	67.708	1.00	20.45
ATOM	3193	O	GLY	1114	17.818	32.791	66.530	1.00	18.72
ATOM	3194	N	PHE	1115	18.716	33.452	68.483	1.00	20.14
ATOM	3195	CA	PHE	1115	19.132	34.742	67.945	1.00	19.53
ATOM	3196	CB	PHE	1115	19.653	35.698	69.038	1.00	17.28
ATOM	3197	CG	PHE	1115	19.835	37.116	68.551	1.00	16.32
ATOM	3198	CD1	PHE	1115	18.730	37.966	68.415	1.00	16.88
ATOM	3199	CD2	PHE	1115	21.084	37.574	68.156	1.00	11.69
ATOM	3200	CE1	PHE	1115	18.872	39.246	67.881	1.00	13.11
ATOM	3201	CE2	PHE	1115	21.232	38.841	67.630	1.00	13.28
ATOM	3202	CZ	PHE	1115	20.118	39.680	67.490	1.00	12.08
ATOM	3203	C	PHE	1115	20.151	34.620	66.799	1.00	20.87
ATOM	3204	O	PHE	1115	20.078	35.395	65.831	1.00	23.09
ATOM	3205	N	THR	1116	21.089	33.670	66.882	1.00	18.86
ATOM	3206	CA	THR	1116	22.069	33.527	65.803	1.00	17.21
ATOM	3207	CB	THR	1116	23.215	32.576	66.165	1.00	16.14
ATOM	3208	OG1	THR	1116	22.692	31.294	66.523	1.00	16.21
ATOM	3209	CG2	THR	1116	24.008	33.124	67.317	1.00	17.57
ATOM	3210	C	THR	1116	21.365	33.024	64.540	1.00	16.79
ATOM	3211	O	THR	1116	21.680	33.462	63.430	1.00	17.79
ATOM	3212	N	TYR	1117	20.381	32.138	64.722	1.00	15.22
ATOM	3213	CA	TYR	1117	19.611	31.600	63.601	1.00	14.45
ATOM	3214	CB	TYR	1117	18.715	30.455	64.068	1.00	11.39
ATOM	3215	CG	TYR	1117	19.354	29.076	63.950	1.00	13.24
ATOM	3216	CD1	TYR	1117	20.440	28.696	64.760	1.00	10.16
ATOM	3217	CE1	TYR	1117	21.038	27.435	64.607	1.00	10.57
ATOM	3218	CD2	TYR	1117	18.889	28.155	63.005	1.00	12.17
ATOM	3219	CE2	TYR	1117	19.482	26.895	62.855	1.00	8.96
ATOM	3220	CZ	TYR	1117	20.549	26.545	63.649	1.00	12.33
ATOM	3221	OH	TYR	1117	21.136	25.314	63.445	1.00	9.52
ATOM	3222	C	TYR	1117	18.794	32.726	62.959	1.00	15.89
ATOM	3223	O	TYR	1117	18.868	32.939	61.756	1.00	20.05
ATOM	3224	N	ALA	1118	18.117	33.512	63.786	1.00	15.20

ATOM	3225	CA	ALA	1118	17.297	34.629	63.341	1.00	15.28
ATOM	3226	CB	ALA	1118	16.552	35.248	64.540	1.00	14.46
ATOM	3227	C	ALA	1118	18.095	35.707	62.620	1.00	16.29
ATOM	3228	O	ALA	1118	17.653	36.225	61.582	1.00	14.78
ATOM	3229	N	LEU	1119	19.244	36.069	63.192	1.00	15.90
ATOM	3230	CA	LEU	1119	20.118	37.096	62.627	1.00	17.17
ATOM	3231	CB	LEU	1119	21.307	37.365	63.561	1.00	16.59
ATOM	3232	CG	LEU	1119	22.195	38.578	63.263	1.00	14.94
ATOM	3233	CD1	LEU	1119	21.495	39.877	63.650	1.00	13.63
ATOM	3234	CD2	LEU	1119	23.507	38.450	64.030	1.00	12.84
ATOM	3235	C	LEU	1119	20.632	36.632	61.256	1.00	18.62
ATOM	3236	O	LEU	1119	20.710	37.421	60.298	1.00	17.47
ATOM	3237	N	SER	1120	21.009	35.360	61.181	1.00	17.47
ATOM	3238	CA	SER	1120	21.487	34.785	59.934	1.00	18.36
ATOM	3239	CB	SER	1120	21.881	33.322	60.153	1.00	18.27
ATOM	3240	OG	SER	1120	22.241	32.689	58.928	1.00	17.84
ATOM	3241	C	SER	1120	20.413	34.903	58.842	1.00	15.97
ATOM	3242	O	SER	1120	20.675	35.430	57.764	1.00	18.24
ATOM	3243	N	VAL	1121	19.200	34.445	59.148	1.00	15.48
ATOM	3244	CA	VAL	1121	18.090	34.502	58.213	1.00	12.74
ATOM	3245	CB	VAL	1121	16.769	34.032	58.882	1.00	12.81
ATOM	3246	CG1	VAL	1121	15.531	34.377	58.025	1.00	7.97
ATOM	3247	CG2	VAL	1121	16.831	32.533	59.145	1.00	12.98
ATOM	3248	C	VAL	1121	17.928	35.918	57.692	1.00	16.03
ATOM	3249	O	VAL	1121	17.941	36.135	56.487	1.00	17.24
ATOM	3250	N	ALA	1122	17.830	36.878	58.604	1.00	14.53
ATOM	3251	CA	ALA	1122	17.629	38.271	58.244	1.00	12.32
ATOM	3252	CB	ALA	1122	17.444	39.092	59.489	1.00	13.69
ATOM	3253	C	ALA	1122	18.763	38.829	57.404	1.00	14.08
ATOM	3254	O	ALA	1122	18.532	39.601	56.488	1.00	13.56
ATOM	3255	N	ASP	1123	19.989	38.461	57.751	1.00	16.43
ATOM	3256	CA	ASP	1123	21.161	38.888	57.007	1.00	16.71
ATOM	3257	CB	ASP	1123	22.404	38.253	57.638	1.00	17.87
ATOM	3258	CG	ASP	1123	23.695	38.608	56.915	1.00	18.02
ATOM	3259	OD1	ASP	1123	24.552	37.718	56.780	1.00	21.19
ATOM	3260	OD2	ASP	1123	23.891	39.768	56.505	1.00	18.60
ATOM	3261	C	ASP	1123	21.022	38.480	55.520	1.00	19.40
ATOM	3262	O	ASP	1123	21.410	39.231	54.639	1.00	19.86
ATOM	3263	N	GLN	1124	20.458	37.304	55.239	1.00	19.24
ATOM	3264	CA	GLN	1124	20.279	36.848	53.849	1.00	20.89
ATOM	3265	CB	GLN	1124	19.662	35.453	53.805	1.00	20.27
ATOM	3266	CG	GLN	1124	20.505	34.398	54.454	1.00	25.35

ATOM	3267	CD	GLN	1124	21.889	34.296	53.848	1.00	28.38
ATOM	3268	OE1	GLN	1124	22.872	34.627	54.492	1.00	33.24
ATOM	3269	NE2	GLN	1124	21.970	33.828	52.604	1.00	33.70
ATOM	3270	C	GLN	1124	19.407	37.798	53.005	1.00	20.15
ATOM	3271	O	GLN	1124	19.725	38.112	51.851	1.00	21.77
ATOM	3272	N	TYR	1125	18.306	38.239	53.595	1.00	18.69
ATOM	3273	CA	TYR	1125	17.380	39.157	52.959	1.00	19.68
ATOM	3274	CB	TYR	1125	16.102	39.264	53.799	1.00	17.59
ATOM	3275	CG	TYR	1125	15.228	38.058	53.654	1.00	17.21
ATOM	3276	CD1	TYR	1125	14.391	37.924	52.544	1.00	16.83
ATOM	3277	CE1	TYR	1125	13.614	36.806	52.368	1.00	16.38
ATOM	3278	CD2	TYR	1125	15.265	37.022	54.588	1.00	14.14
ATOM	3279	CE2	TYR	1125	14.485	35.888	54.416	1.00	14.87
ATOM	3280	CZ	TYR	1125	13.668	35.791	53.296	1.00	15.93
ATOM	3281	OH	TYR	1125	12.912	34.687	53.062	1.00	13.99
ATOM	3282	C	TYR	1125	17.970	40.538	52.734	1.00	19.38
ATOM	3283	O	TYR	1125	17.713	41.153	51.705	1.00	22.73
ATOM	3284	N	VAL	1126	18.763	41.023	53.679	1.00	18.70
ATOM	3285	CA	VAL	1126	19.353	42.363	53.570	1.00	19.27
ATOM	3286	CB	VAL	1126	19.761	42.922	54.970	1.00	17.48
ATOM	3287	CG1	VAL	1126	20.352	44.311	54.850	1.00	15.42
ATOM	3288	CG2	VAL	1126	18.542	42.996	55.887	1.00	16.32
ATOM	3289	C	VAL	1126	20.551	42.318	52.610	1.00	21.49
ATOM	3290	O	VAL	1126	20.731	43.208	51.765	1.00	21.55
ATOM	3291	N	LYS	1127	21.339	41.252	52.725	1.00	20.76
ATOM	3292	CA	LYS	1127	22.517	41.024	51.889	1.00	23.90
ATOM	3293	CB	LYS	1127	23.090	39.644	52.200	1.00	22.09
ATOM	3294	CG	LYS	1127	24.503	39.620	52.665	1.00	24.26
ATOM	3295	CD	LYS	1127	24.909	38.190	52.908	1.00	23.81
ATOM	3296	CE	LYS	1127	26.395	38.108	53.073	1.00	29.75
ATOM	3297	NZ	LYS	1127	26.833	36.696	53.193	1.00	39.77
ATOM	3298	C	LYS	1127	22.122	41.035	50.407	1.00	25.35
ATOM	3299	O	LYS	1127	22.758	41.709	49.590	1.00	26.17
ATOM	3300	N	SER	1128	21.066	40.287	50.088	1.00	25.79
ATOM	3301	CA	SER	1128	20.567	40.139	48.723	1.00	25.72
ATOM	3302	CB	SER	1128	19.564	38.984	48.650	1.00	23.45
ATOM	3303	OG	SER	1128	18.381	39.277	49.376	1.00	28.43
ATOM	3304	C	SER	1128	19.923	41.385	48.122	1.00	27.55
ATOM	3305	O	SER	1128	19.679	41.431	46.904	1.00	27.89
ATOM	3306	N	GLY	1129	19.602	42.370	48.961	1.00	26.22
ATOM	3307	CA	GLY	1129	18.967	43.584	48.465	1.00	25.77
ATOM	3308	C	GLY	1129	17.439	43.502	48.477	1.00	26.00

ATOM	3309	O	GLY	1129	16.738	44.453	48.106	1.00	25.36
ATOM	3310	N	ALA	1130	16.922	42.377	48.954	1.00	24.19
ATOM	3311	CA	ALA	1130	15.492	42.154	49.034	1.00	22.77
ATOM	3312	CB	ALA	1130	15.231	40.682	49.340	1.00	21.56
ATOM	3313	C	ALA	1130	14.839	43.035	50.095	1.00	21.24
ATOM	3314	O	ALA	1130	13.731	43.517	49.921	1.00	20.31
ATOM	3315	N	VAL	1131	15.557	43.260	51.184	1.00	22.25
ATOM	3316	CA	VAL	1131	15.044	44.044	52.302	1.00	23.36
ATOM	3317	CB	VAL	1131	14.759	43.109	53.513	1.00	21.15
ATOM	3318	CG1	VAL	1131	14.435	43.896	54.743	1.00	17.12
ATOM	3319	CG2	VAL	1131	13.588	42.183	53.177	1.00	21.04
ATOM	3320	C	VAL	1131	16.021	45.144	52.688	1.00	24.13
ATOM	3321	O	VAL	1131	17.237	44.930	52.717	1.00	27.00
ATOM	3322	N	LYS	1132	15.477	46.322	52.991	1.00	24.66
ATOM	3323	CA	LYS	1132	16.279	47.485	53.365	1.00	24.00
ATOM	3324	CB	LYS	1132	15.575	48.771	52.946	1.00	27.09
ATOM	3325	CG	LYS	1132	16.487	49.973	53.017	1.00	34.13
ATOM	3326	CD	LYS	1132	15.750	51.271	52.778	1.00	40.65
ATOM	3327	CE	LYS	1132	16.733	52.392	52.431	1.00	45.60
ATOM	3328	NZ	LYS	1132	17.864	52.575	53.413	1.00	51.60
ATOM	3329	C	LYS	1132	16.565	47.545	54.858	1.00	22.19
ATOM	3330	O	LYS	1132	17.682	47.850	55.273	1.00	22.63
ATOM	3331	N	TYR	1133	15.537	47.316	55.661	1.00	19.97
ATOM	3332	CA	TYR	1133	15.676	47.330	57.112	1.00	20.71
ATOM	3333	CB	TYR	1133	15.033	48.587	57.709	1.00	21.18
ATOM	3334	CG	TYR	1133	15.681	49.902	57.314	1.00	19.99
ATOM	3335	CD1	TYR	1133	14.956	50.859	56.616	1.00	22.01
ATOM	3336	CE1	TYR	1133	15.515	52.067	56.265	1.00	19.35
ATOM	3337	CD2	TYR	1133	17.008	50.198	57.657	1.00	16.49
ATOM	3338	CE2	TYR	1133	17.578	51.414	57.305	1.00	16.03
ATOM	3339	CZ	TYR	1133	16.815	52.340	56.609	1.00	18.02
ATOM	3340	OH	TYR	1133	17.323	53.561	56.247	1.00	23.18
ATOM	3341	C	TYR	1133	14.975	46.117	57.701	1.00	18.21
ATOM	3342	O	TYR	1133	13.797	45.893	57.415	1.00	19.98
ATOM	3343	N	ALA	1134	15.696	45.319	58.479	1.00	16.65
ATOM	3344	CA	ALA	1134	15.103	44.149	59.119	1.00	14.83
ATOM	3345	CB	ALA	1134	15.832	42.875	58.709	1.00	8.34
ATOM	3346	C	ALA	1134	15.191	44.339	60.631	1.00	16.31
ATOM	3347	O	ALA	1134	16.100	45.001	61.115	1.00	17.75
ATOM	3348	N	LEU	1135	14.219	43.802	61.360	1.00	17.71
ATOM	3349	CA	LEU	1135	14.181	43.870	62.818	1.00	13.97
ATOM	3350	CB	LEU	1135	12.843	44.431	63.303	1.00	12.28

ATOM	3351	CG	LEU	1135	12.525	44.370	64.809	1.00	15.87
ATOM	3352	CD1	LEU	1135	13.482	45.251	65.645	1.00	14.81
ATOM	3353	CD2	LEU	1135	11.091	44.788	65.016	1.00	9.22
ATOM	3354	C	LEU	1135	14.296	42.437	63.276	1.00	11.58
ATOM	3355	O	LEU	1135	13.494	41.605	62.872	1.00	10.81
ATOM	3356	N	VAL	1136	15.341	42.136	64.045	1.00	13.78
ATOM	3357	CA	VAL	1136	15.569	40.787	64.586	1.00	13.98
ATOM	3358	CB	VAL	1136	16.986	40.242	64.251	1.00	15.18
ATOM	3359	CG1	VAL	1136	17.089	38.762	64.625	1.00	9.89
ATOM	3360	CG2	VAL	1136	17.298	40.440	62.797	1.00	14.99
ATOM	3361	C	VAL	1136	15.439	40.834	66.116	1.00	15.57
ATOM	3362	O	VAL	1136	16.159	41.567	66.793	1.00	15.12
ATOM	3363	N	VAL	1137	14.516	40.051	66.654	1.00	17.03
ATOM	3364	CA	VAL	1137	14.285	40.004	68.090	1.00	15.00
ATOM	3365	CB	VAL	1137	12.782	40.311	68.399	1.00	16.77
ATOM	3366	CG1	VAL	1137	12.456	40.097	69.905	1.00	15.90
ATOM	3367	CG2	VAL	1137	12.440	41.732	67.988	1.00	12.51
ATOM	3368	C	VAL	1137	14.636	38.625	68.673	1.00	16.89
ATOM	3369	O	VAL	1137	14.417	37.598	68.026	1.00	14.42
ATOM	3370	N	GLY	1138	15.254	38.618	69.858	1.00	16.97
ATOM	3371	CA	GLY	1138	15.533	37.375	70.568	1.00	15.41
ATOM	3372	C	GLY	1138	14.717	37.591	71.849	1.00	15.12
ATOM	3373	O	GLY	1138	15.004	38.537	72.573	1.00	17.30
ATOM	3374	N	SER	1139	13.699	36.782	72.124	1.00	12.76
ATOM	3375	CA	SER	1139	12.866	36.982	73.321	1.00	16.83
ATOM	3376	CB	SER	1139	11.712	37.957	73.004	1.00	17.32
ATOM	3377	OG	SER	1139	10.938	38.265	74.156	1.00	15.50
ATOM	3378	C	SER	1139	12.302	35.657	73.853	1.00	17.76
ATOM	3379	O	SER	1139	11.803	34.836	73.077	1.00	19.14
ATOM	3380	N	ASP	1140	12.370	35.457	75.172	1.00	14.47
ATOM	3381	CA	ASP	1140	11.898	34.228	75.807	1.00	15.30
ATOM	3382	CB	ASP	1140	13.006	33.163	75.754	1.00	16.22
ATOM	3383	CG	ASP	1140	13.036	32.384	74.449	1.00	18.24
ATOM	3384	OD1	ASP	1140	12.000	31.812	74.072	1.00	14.95
ATOM	3385	OD2	ASP	1140	14.108	32.308	73.822	1.00	14.82
ATOM	3386	C	ASP	1140	11.507	34.405	77.281	1.00	14.16
ATOM	3387	O	ASP	1140	12.057	35.243	77.980	1.00	15.60
ATOM	3388	N	VAL	1141	10.566	33.600	77.747	1.00	15.70
ATOM	3389	CA	VAL	1141	10.160	33.621	79.141	1.00	14.70
ATOM	3390	CB	VAL	1141	8.667	33.999	79.353	1.00	10.79
ATOM	3391	CG1	VAL	1141	8.418	35.427	78.900	1.00	10.09
ATOM	3392	CG2	VAL	1141	7.715	33.017	78.682	1.00	7.53

ATOM	3393	C	VAL	1141	10.462	32.234	79.752	1.00	18.10
ATOM	3394	O	VAL	1141	9.608	31.621	80.419	1.00	18.31
ATOM	3395	N	LEU	1142	11.702	31.765	79.575	1.00	19.21
ATOM	3396	CA	LEU	1142	12.113	30.435	80.074	1.00	19.60
ATOM	3397	CB	LEU	1142	13.515	30.050	79.553	1.00	17.85
ATOM	3398	CG	LEU	1142	13.652	29.823	78.031	1.00	15.52
ATOM	3399	CD1	LEU	1142	14.769	28.859	77.771	1.00	14.24
ATOM	3400	CD2	LEU	1142	12.368	29.271	77.415	1.00	14.94
ATOM	3401	C	LEU	1142	11.979	30.166	81.582	1.00	21.29
ATOM	3402	O	LEU	1142	11.818	29.013	81.989	1.00	22.01
ATOM	3403	N	ALA	1143	12.031	31.223	82.399	1.00	20.26
ATOM	3404	CA	ALA	1143	11.867	31.076	83.850	1.00	18.39
ATOM	3405	CB	ALA	1143	12.061	32.397	84.560	1.00	14.69
ATOM	3406	C	ALA	1143	10.440	30.575	84.051	1.00	19.12
ATOM	3407	O	ALA	1143	10.185	29.696	84.872	1.00	21.96
ATOM	3408	N	ARG	1144	9.521	31.084	83.236	1.00	18.39
ATOM	3409	CA	ARG	1144	8.122	30.675	83.313	1.00	19.63
ATOM	3410	CB	ARG	1144	7.266	31.636	82.468	1.00	19.44
ATOM	3411	CG	ARG	1144	5.769	31.334	82.420	1.00	21.47
ATOM	3412	CD	ARG	1144	5.018	32.430	81.686	1.00	21.93
ATOM	3413	NE	ARG	1144	5.082	33.705	82.396	1.00	28.75
ATOM	3414	CZ	ARG	1144	4.798	34.896	81.874	1.00	31.21
ATOM	3415	NH1	ARG	1144	4.875	35.972	82.643	1.00	36.03
ATOM	3416	NH2	ARG	1144	4.467	35.023	80.597	1.00	32.34
ATOM	3417	C	ARG	1144	7.902	29.207	82.887	1.00	19.49
ATOM	3418	O	ARG	1144	6.982	28.540	83.365	1.00	21.55
ATOM	3419	N	THR	1145	8.773	28.697	82.025	1.00	18.10
ATOM	3420	CA	THR	1145	8.653	27.320	81.528	1.00	18.98
ATOM	3421	CB	THR	1145	9.347	27.179	80.162	1.00	18.30
ATOM	3422	OG1	THR	1145	10.764	27.247	80.340	1.00	18.89
ATOM	3423	CG2	THR	1145	8.900	28.323	79.229	1.00	18.91
ATOM	3424	C	THR	1145	9.235	26.272	82.476	1.00	20.29
ATOM	3425	O	THR	1145	9.040	25.060	82.297	1.00	18.18
ATOM	3426	N	CYS	1146	10.008	26.758	83.443	1.00	22.41
ATOM	3427	CA	CYS	1146	10.660	25.917	84.438	1.00	24.04
ATOM	3428	CB	CYS	1146	11.806	26.682	85.111	1.00	22.72
ATOM	3429	SG	CYS	1146	13.321	26.900	84.158	1.00	23.10
ATOM	3430	C	CYS	1146	9.746	25.393	85.546	1.00	25.09
ATOM	3431	O	CYS	1146	8.731	26.007	85.886	1.00	26.10
ATOM	3432	N	ASP	1147	10.094	24.225	86.082	1.00	26.61
ATOM	3433	CA	ASP	1147	9.359	23.650	87.204	1.00	27.24
ATOM	3434	CB	ASP	1147	9.706	22.163	87.376	1.00	29.50

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ATOM    3435   CG   ASP   1147      8.939   21.490   88.539   1.00  31.84
ATOM    3436   OD1  ASP   1147      9.068   20.251   88.669   1.00  32.23
ATOM    3437   OD2  ASP   1147      8.207   22.167   89.309   1.00  31.27
ATOM    3438   C    ASP   1147      9.955   24.454   88.362   1.00  25.98
ATOM    3439   O    ASP   1147     11.167   24.419   88.590   1.00  24.67
ATOM    3440   N    PRO   1148      9.122   25.231   89.077   1.00  26.60
ATOM    3441   CD   PRO   1148      7.661   25.346   88.935   1.00  29.28
ATOM    3442   CA   PRO   1148      9.595   26.041   90.206   1.00  27.53
ATOM    3443   CB   PRO   1148      8.326   26.769   90.653   1.00  27.27
ATOM    3444   CG   PRO   1148      7.248   25.783   90.314   1.00  31.38
ATOM    3445   C    PRO   1148     10.195   25.216   91.343   1.00  26.39
ATOM    3446   O    PRO   1148     10.891   25.752   92.203   1.00  26.37
ATOM    3447   N    THR   1149      9.911   23.914   91.336   1.00  27.31
ATOM    3448   CA   THR   1149     10.423   22.993   92.339   1.00  26.75
ATOM    3449   CB   THR   1149      9.334   21.988   92.787   1.00  23.89
ATOM    3450   OG1  THR   1149      9.101   21.022   91.762   1.00  24.93
ATOM    3451   CG2  THR   1149      8.034   22.714   93.089   1.00  20.29
ATOM    3452   C    THR   1149     11.700   22.250   91.899   1.00  28.60
ATOM    3453   O    THR   1149     12.297   21.493   92.688   1.00  29.67
ATOM    3454   N    ASP   1150     12.142   22.465   90.660   1.00  27.33
ATOM    3455   CA   ASP   1150     13.350   21.790   90.185   1.00  26.73
ATOM    3456   CB   ASP   1150     13.199   21.338   88.740   1.00  27.87
ATOM    3457   CG   ASP   1150     14.452   20.675   88.221   1.00  30.65
ATOM    3458   OD1  ASP   1150     14.686   19.493   88.548   1.00  35.09
ATOM    3459   OD2  ASP   1150     15.232   21.347   87.517   1.00  35.72
ATOM    3460   C    ASP   1150     14.541   22.728   90.315   1.00  25.83
ATOM    3461   O    ASP   1150     14.700   23.639   89.512   1.00  22.50
ATOM    3462   N    ARG   1151     15.398   22.487   91.303   1.00  27.99
ATOM    3463   CA   ARG   1151     16.528   23.386   91.512   1.00  31.74
ATOM    3464   CB   ARG   1151     17.221   23.162   92.864   1.00  37.02
ATOM    3465   CG   ARG   1151     18.037   21.905   93.001   1.00  47.20
ATOM    3466   CD   ARG   1151     18.917   22.016   94.225   1.00  51.59
ATOM    3467   NE   ARG   1151     19.775   20.854   94.405   1.00  58.14
ATOM    3468   CZ   ARG   1151     20.692   20.749   95.366   1.00  62.63
ATOM    3469   NH1  ARG   1151     21.428   19.651   95.450   1.00  65.11
ATOM    3470   NH2  ARG   1151     20.902   21.749   96.221   1.00  62.40
ATOM    3471   C    ARG   1151     17.530   23.431   90.377   1.00  29.85
ATOM    3472   O    ARG   1151     18.185   24.453   90.171   1.00  32.05
ATOM    3473   N    GLY   1152     17.625   22.348   89.617   1.00  28.66
ATOM    3474   CA   GLY   1152     18.549   22.336   88.498   1.00  29.42
ATOM    3475   C    GLY   1152     18.198   23.372   87.441   1.00  27.07
ATOM    3476   O    GLY   1152     19.091   23.979   86.848   1.00  26.05
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ATOM	3477	N	THR	1153	16.905	23.609	87.238	1.00	24.89
ATOM	3478	CA	THR	1153	16.470	24.567	86.228	1.00	24.37
ATOM	3479	CB	THR	1153	15.348	23.980	85.329	1.00	23.24
ATOM	3480	OG1	THR	1153	14.223	23.609	86.133	1.00	20.75
ATOM	3481	CG2	THR	1153	15.860	22.749	84.551	1.00	22.61
ATOM	3482	C	THR	1153	16.073	25.984	86.679	1.00	24.89
ATOM	3483	O	THR	1153	16.542	26.949	86.054	1.00	25.28
ATOM	3484	N	ILE	1154	15.244	26.150	87.730	1.00	24.50
ATOM	3485	CA	ILE	1154	14.862	27.529	88.127	1.00	23.67
ATOM	3486	CB	ILE	1154	13.755	27.691	89.243	1.00	22.66
ATOM	3487	CG2	ILE	1154	12.396	28.053	88.646	1.00	20.03
ATOM	3488	CG1	ILE	1154	13.764	26.537	90.225	1.00	25.14
ATOM	3489	CD1	ILE	1154	14.719	26.737	91.364	1.00	26.85
ATOM	3490	C	ILE	1154	16.006	28.420	88.536	1.00	22.90
ATOM	3491	O	ILE	1154	15.864	29.635	88.490	1.00	24.52
ATOM	3492	N	ILE	1155	17.140	27.840	88.913	1.00	23.28
ATOM	3493	CA	ILE	1155	18.260	28.676	89.326	1.00	24.10
ATOM	3494	CB	ILE	1155	19.282	27.886	90.247	1.00	24.79
ATOM	3495	CG2	ILE	1155	18.583	27.349	91.491	1.00	23.68
ATOM	3496	CG1	ILE	1155	19.978	26.749	89.480	1.00	22.04
ATOM	3497	CD1	ILE	1155	21.091	26.044	90.268	1.00	18.76
ATOM	3498	C	ILE	1155	18.991	29.283	88.122	1.00	24.51
ATOM	3499	O	ILE	1155	19.765	30.237	88.260	1.00	23.70
ATOM	3500	N	ILE	1156	18.687	28.772	86.933	1.00	25.86
ATOM	3501	CA	ILE	1156	19.357	29.219	85.717	1.00	23.93
ATOM	3502	CB	ILE	1156	19.704	27.995	84.838	1.00	23.08
ATOM	3503	CG2	ILE	1156	20.198	28.421	83.451	1.00	18.39
ATOM	3504	CG1	ILE	1156	20.767	27.154	85.540	1.00	20.92
ATOM	3505	CD1	ILE	1156	20.730	25.705	85.151	1.00	27.72
ATOM	3506	C	ILE	1156	18.657	30.265	84.860	1.00	24.14
ATOM	3507	O	ILE	1156	19.235	31.304	84.527	1.00	20.09
ATOM	3508	N	PHE	1157	17.403	29.996	84.521	1.00	25.21
ATOM	3509	CA	PHE	1157	16.661	30.877	83.627	1.00	25.21
ATOM	3510	CB	PHE	1157	15.630	30.065	82.830	1.00	23.12
ATOM	3511	CG	PHE	1157	16.244	28.917	82.089	1.00	21.38
ATOM	3512	CD1	PHE	1157	16.291	27.647	82.668	1.00	21.89
ATOM	3513	CD2	PHE	1157	16.855	29.121	80.854	1.00	18.45
ATOM	3514	CE1	PHE	1157	16.947	26.595	82.026	1.00	20.69
ATOM	3515	CE2	PHE	1157	17.507	28.085	80.211	1.00	18.04
ATOM	3516	CZ	PHE	1157	17.558	26.816	80.793	1.00	18.78
ATOM	3517	C	PHE	1157	16.047	32.144	84.165	1.00	24.94
ATOM	3518	O	PHE	1157	15.713	32.254	85.346	1.00	24.61

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ATOM   3519  N    GLY  1158      15.947  33.106  83.256  1.00 25.54
ATOM   3520  CA   GLY  1158      15.363  34.404  83.521  1.00 20.92
ATOM   3521  C    GLY  1158      14.577  34.737  82.271  1.00 20.70
ATOM   3522  O    GLY  1158      14.593  33.978  81.300  1.00 20.04
ATOM   3523  N    ASP  1159      13.876  35.861  82.308  1.00 20.81
ATOM   3524  CA   ASP  1159      13.052  36.341  81.209  1.00 19.87
ATOM   3525  CB   ASP  1159      11.617  36.545  81.711  1.00 17.10
ATOM   3526  CG   ASP  1159      11.026  35.292  82.260  1.00 17.37
ATOM   3527  OD1  ASP  1159      11.471  34.218  81.827  1.00 20.13
ATOM   3528  OD2  ASP  1159      10.121  35.358  83.113  1.00 21.20
ATOM   3529  C    ASP  1159      13.622  37.670  80.664  1.00 22.07
ATOM   3530  O    ASP  1159      14.290  38.431  81.390  1.00 23.04
ATOM   3531  N    GLY  1160      13.352  37.951  79.387  1.00 21.12
ATOM   3532  CA   GLY  1160      13.843  39.178  78.779  1.00 19.97
ATOM   3533  C    GLY  1160      13.786  39.171  77.272  1.00 20.57
ATOM   3534  O    GLY  1160      13.433  38.157  76.660  1.00 20.61
ATOM   3535  N    ALA  1161      14.170  40.283  76.662  1.00 18.54
ATOM   3536  CA   ALA  1161      14.151  40.392  75.215  1.00 19.40
ATOM   3537  CB   ALA  1161      12.829  40.977  74.754  1.00 17.06
ATOM   3538  C    ALA  1161      15.288  41.283  74.768  1.00 18.28
ATOM   3539  O    ALA  1161      15.649  42.209  75.473  1.00 20.14
ATOM   3540  N    GLY  1162      15.834  41.000  73.591  1.00 17.12
ATOM   3541  CA   GLY  1162      16.918  41.790  73.024  1.00 17.56
ATOM   3542  C    GLY  1162      16.598  41.964  71.545  1.00 18.99
ATOM   3543  O    GLY  1162      15.956  41.098  70.949  1.00 18.78
ATOM   3544  N    ALA  1163      17.017  43.064  70.941  1.00 18.65
ATOM   3545  CA   ALA  1163      16.734  43.279  69.528  1.00 18.66
ATOM   3546  CB   ALA  1163      15.424  44.037  69.358  1.00 18.40
ATOM   3547  C    ALA  1163      17.850  44.012  68.808  1.00 18.98
ATOM   3548  O    ALA  1163      18.727  44.608  69.427  1.00 20.02
ATOM   3549  N    ALA  1164      17.808  43.965  67.483  1.00 20.11
ATOM   3550  CA   ALA  1164      18.790  44.636  66.650  1.00 17.66
ATOM   3551  CB   ALA  1164      19.946  43.700  66.371  1.00 17.85
ATOM   3552  C    ALA  1164      18.091  44.983  65.356  1.00 18.69
ATOM   3553  O    ALA  1164      17.156  44.283  64.956  1.00 17.33
ATOM   3554  N    VAL  1165      18.417  46.133  64.773  1.00 18.71
ATOM   3555  CA   VAL  1165      17.829  46.455  63.488  1.00 19.43
ATOM   3556  CB   VAL  1165      17.018  47.798  63.414  1.00 22.03
ATOM   3557  CG1  VAL  1165      16.678  48.321  64.773  1.00 24.30
ATOM   3558  CG2  VAL  1165      17.687  48.814  62.510  1.00 21.11
ATOM   3559  C    VAL  1165      18.984  46.414  62.509  1.00 18.87
ATOM   3560  O    VAL  1165      20.083  46.877  62.822  1.00 19.14
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ATOM	3561	N	LEU	1166	18.747	45.722	61.398	1.00	18.83
ATOM	3562	CA	LEU	1166	19.707	45.513	60.314	1.00	18.79
ATOM	3563	CB	LEU	1166	19.650	44.046	59.880	1.00	17.85
ATOM	3564	CG	LEU	1166	20.295	42.951	60.745	1.00	19.59
ATOM	3565	CD1	LEU	1166	19.899	43.036	62.230	1.00	17.01
ATOM	3566	CD2	LEU	1166	19.918	41.588	60.162	1.00	11.36
ATOM	3567	C	LEU	1166	19.439	46.412	59.102	1.00	19.09
ATOM	3568	O	LEU	1166	18.284	46.665	58.742	1.00	17.59
ATOM	3569	N	ALA	1167	20.517	46.851	58.453	1.00	20.23
ATOM	3570	CA	ALA	1167	20.429	47.727	57.277	1.00	20.62
ATOM	3571	CB	ALA	1167	20.612	49.180	57.687	1.00	21.55
ATOM	3572	C	ALA	1167	21.452	47.374	56.217	1.00	19.49
ATOM	3573	O	ALA	1167	22.548	46.913	56.525	1.00	19.38
ATOM	3574	N	ALA	1168	21.108	47.641	54.967	1.00	22.40
ATOM	3575	CA	ALA	1168	22.002	47.358	53.848	1.00	25.07
ATOM	3576	CB	ALA	1168	21.263	47.545	52.536	1.00	26.78
ATOM	3577	C	ALA	1168	23.222	48.267	53.912	1.00	25.88
ATOM	3578	O	ALA	1168	23.120	49.408	54.334	1.00	26.31
ATOM	3579	N	SER	1169	24.378	47.745	53.521	1.00	29.15
ATOM	3580	CA	SER	1169	25.626	48.506	53.545	1.00	34.11
ATOM	3581	CB	SER	1169	26.382	48.265	54.858	1.00	34.96
ATOM	3582	OG	SER	1169	25.553	48.559	55.964	1.00	41.04
ATOM	3583	C	SER	1169	26.526	48.067	52.420	1.00	36.27
ATOM	3584	O	SER	1169	26.365	46.974	51.877	1.00	36.05
ATOM	3585	N	GLU	1170	27.476	48.936	52.082	1.00	40.89
ATOM	3586	CA	GLU	1170	28.455	48.658	51.044	1.00	43.45
ATOM	3587	CB	GLU	1170	29.101	49.957	50.553	1.00	46.59
ATOM	3588	CG	GLU	1170	29.811	49.783	49.207	1.00	58.70
ATOM	3589	CD	GLU	1170	31.028	50.689	49.010	1.00	63.73
ATOM	3590	OE1	GLU	1170	31.888	50.335	48.170	1.00	67.87
ATOM	3591	OE2	GLU	1170	31.131	51.743	49.679	1.00	66.86
ATOM	3592	C	GLU	1170	29.517	47.768	51.691	1.00	42.97
ATOM	3593	O	GLU	1170	29.944	46.747	51.131	1.00	41.70
ATOM	3594	N	GLU	1171	29.916	48.165	52.896	1.00	43.77
ATOM	3595	CA	GLU	1171	30.917	47.433	53.660	1.00	43.28
ATOM	3596	CB	GLU	1171	31.909	48.405	54.299	1.00	46.73
ATOM	3597	CG	GLU	1171	32.834	49.082	53.304	1.00	53.01
ATOM	3598	CD	GLU	1171	33.242	50.472	53.756	1.00	59.78
ATOM	3599	OE1	GLU	1171	33.103	51.426	52.952	1.00	61.61
ATOM	3600	OE2	GLU	1171	33.687	50.614	54.922	1.00	64.86
ATOM	3601	C	GLU	1171	30.255	46.557	54.721	1.00	41.41
ATOM	3602	O	GLU	1171	29.165	46.865	55.216	1.00	39.05

ATOM	3603	N	PRO	1172	30.892	45.429	55.040	1.00	40.67
ATOM	3604	CD	PRO	1172	32.116	44.942	54.381	1.00	42.12
ATOM	3605	CA	PRO	1172	30.427	44.461	56.019	1.00	39.91
ATOM	3606	CB	PRO	1172	31.463	43.344	55.930	1.00	40.79
ATOM	3607	CG	PRO	1172	32.000	43.456	54.569	1.00	42.69
ATOM	3608	C	PRO	1172	30.325	44.932	57.445	1.00	39.03
ATOM	3609	O	PRO	1172	31.194	45.618	57.993	1.00	38.49
ATOM	3610	N	GLY	1173	29.166	44.620	57.988	1.00	37.40
ATOM	3611	CA	GLY	1173	28.891	44.847	59.374	1.00	28.29
ATOM	3612	C	GLY	1173	28.957	43.358	59.612	1.00	24.26
ATOM	3613	O	GLY	1173	30.017	42.837	59.958	1.00	23.34
ATOM	3614	N	ILE	1174	27.907	42.654	59.186	1.00	20.82
ATOM	3615	CA	ILE	1174	27.862	41.212	59.354	1.00	17.80
ATOM	3616	CB	ILE	1174	26.443	40.649	59.262	1.00	16.15
ATOM	3617	CG2	ILE	1174	26.479	39.165	59.632	1.00	18.34
ATOM	3618	CG1	ILE	1174	25.493	41.410	60.204	1.00	15.25
ATOM	3619	CD1	ILE	1174	24.095	40.841	60.288	1.00	12.34
ATOM	3620	C	ILE	1174	28.741	40.582	58.296	1.00	20.30
ATOM	3621	O	ILE	1174	28.366	40.466	57.125	1.00	22.62
ATOM	3622	N	ILE	1175	29.940	40.207	58.713	1.00	20.21
ATOM	3623	CA	ILE	1175	30.901	39.614	57.807	1.00	21.06
ATOM	3624	CB	ILE	1175	32.318	39.599	58.442	1.00	21.90
ATOM	3625	CG2	ILE	1175	33.322	38.940	57.518	1.00	17.79
ATOM	3626	CG1	ILE	1175	32.749	41.032	58.774	1.00	20.11
ATOM	3627	CD1	ILE	1175	34.032	41.126	59.546	1.00	17.73
ATOM	3628	C	ILE	1175	30.481	38.206	57.400	1.00	22.20
ATOM	3629	O	ILE	1175	30.427	37.890	56.215	1.00	23.25
ATOM	3630	N	SER	1176	30.087	37.393	58.373	1.00	19.78
ATOM	3631	CA	SER	1176	29.724	36.026	58.071	1.00	18.75
ATOM	3632	CB	SER	1176	31.014	35.210	58.051	1.00	21.11
ATOM	3633	OG	SER	1176	30.816	33.922	57.528	1.00	30.99
ATOM	3634	C	SER	1176	28.762	35.501	59.132	1.00	19.43
ATOM	3635	O	SER	1176	28.668	36.064	60.225	1.00	19.52
ATOM	3636	N	THR	1177	28.104	34.388	58.830	1.00	17.97
ATOM	3637	CA	THR	1177	27.149	33.764	59.733	1.00	17.03
ATOM	3638	CB	THR	1177	25.743	34.247	59.346	1.00	19.32
ATOM	3639	OG1	THR	1177	25.201	35.045	60.400	1.00	29.40
ATOM	3640	CG2	THR	1177	24.848	33.122	59.013	1.00	15.94
ATOM	3641	C	THR	1177	27.313	32.245	59.586	1.00	16.58
ATOM	3642	O	THR	1177	27.515	31.774	58.484	1.00	20.37
ATOM	3643	N	HIS	1178	27.239	31.471	60.673	1.00	16.74
ATOM	3644	CA	HIS	1178	27.433	30.015	60.593	1.00	13.08

ATOM	3645	CB	HIS	1178	28.873	29.664	60.978	1.00	15.90
ATOM	3646	CG	HIS	1178	29.905	30.449	60.219	1.00	15.89
ATOM	3647	CD2	HIS	1178	30.663	30.117	59.152	1.00	11.90
ATOM	3648	ND1	HIS	1178	30.181	31.772	60.487	1.00	18.04
ATOM	3649	CE1	HIS	1178	31.055	32.225	59.611	1.00	11.81
ATOM	3650	NE2	HIS	1178	31.364	31.242	58.788	1.00	14.47
ATOM	3651	C	HIS	1178	26.484	29.298	61.523	1.00	14.97
ATOM	3652	O	HIS	1178	26.543	29.510	62.734	1.00	15.98
ATOM	3653	N	LEU	1179	25.670	28.398	60.981	1.00	14.49
ATOM	3654	CA	LEU	1179	24.683	27.683	61.779	1.00	14.49
ATOM	3655	CB	LEU	1179	23.279	28.039	61.286	1.00	11.99
ATOM	3656	CG	LEU	1179	22.909	29.520	61.142	1.00	12.54
ATOM	3657	CD1	LEU	1179	21.470	29.616	60.617	1.00	11.06
ATOM	3658	CD2	LEU	1179	23.034	30.233	62.479	1.00	10.39
ATOM	3659	C	LEU	1179	24.858	26.173	61.735	1.00	14.98
ATOM	3660	O	LEU	1179	25.223	25.618	60.695	1.00	15.27
ATOM	3661	N	HIS	1180	24.596	25.496	62.852	1.00	16.23
ATOM	3662	CA	HIS	1180	24.724	24.035	62.927	1.00	16.30
ATOM	3663	CB	HIS	1180	26.085	23.639	63.502	1.00	17.65
ATOM	3664	CG	HIS	1180	27.246	23.988	62.620	1.00	18.76
ATOM	3665	CD2	HIS	1180	27.723	23.418	61.493	1.00	19.28
ATOM	3666	ND1	HIS	1180	28.027	25.106	62.849	1.00	20.55
ATOM	3667	CE1	HIS	1180	28.927	25.212	61.878	1.00	19.93
ATOM	3668	NE2	HIS	1180	28.763	24.196	61.047	1.00	22.04
ATOM	3669	C	HIS	1180	23.654	23.428	63.815	1.00	16.11
ATOM	3670	O	HIS	1180	23.005	24.125	64.587	1.00	15.99
ATOM	3671	N	ALA	1181	23.466	22.118	63.688	1.00	17.25
ATOM	3672	CA	ALA	1181	22.516	21.387	64.525	1.00	16.57
ATOM	3673	CB	ALA	1181	21.072	21.592	64.049	1.00	14.75
ATOM	3674	C	ALA	1181	22.863	19.909	64.490	1.00	15.83
ATOM	3675	O	ALA	1181	23.559	19.445	63.585	1.00	17.05
ATOM	3676	N	ASP	1182	22.403	19.193	65.501	1.00	14.49
ATOM	3677	CA	ASP	1182	22.593	17.749	65.614	1.00	16.49
ATOM	3678	CB	ASP	1182	23.929	17.402	66.264	1.00	15.02
ATOM	3679	CG	ASP	1182	24.206	15.913	66.263	1.00	16.55
ATOM	3680	OD1	ASP	1182	23.256	15.104	66.129	1.00	16.02
ATOM	3681	OD2	ASP	1182	25.385	15.547	66.399	1.00	18.00
ATOM	3682	C	ASP	1182	21.439	17.251	66.469	1.00	17.47
ATOM	3683	O	ASP	1182	21.518	17.193	67.701	1.00	17.88
ATOM	3684	N	GLY	1183	20.365	16.881	65.789	1.00	17.18
ATOM	3685	CA	GLY	1183	19.165	16.419	66.452	1.00	16.36
ATOM	3686	C	GLY	1183	19.306	15.143	67.236	1.00	17.77

ATOM	3687	O	GLY	1183	18.361	14.757	67.916	1.00	19.97
ATOM	3688	N	SER	1184	20.454	14.477	67.161	1.00	19.39
ATOM	3689	CA	SER	1184	20.621	13.237	67.922	1.00	20.31
ATOM	3690	CB	SER	1184	21.846	12.438	67.441	1.00	18.56
ATOM	3691	OG	SER	1184	23.064	13.053	67.842	1.00	22.64
ATOM	3692	C	SER	1184	20.707	13.510	69.428	1.00	20.19
ATOM	3693	O	SER	1184	20.611	12.591	70.216	1.00	21.81
ATOM	3694	N	TYR	1185	20.887	14.773	69.810	1.00	19.17
ATOM	3695	CA	TYR	1185	20.960	15.162	71.211	1.00	18.26
ATOM	3696	CB	TYR	1185	22.065	16.170	71.418	1.00	16.62
ATOM	3697	CG	TYR	1185	23.445	15.671	71.176	1.00	21.54
ATOM	3698	CD1	TYR	1185	24.122	14.957	72.156	1.00	25.89
ATOM	3699	CE1	TYR	1185	25.434	14.530	71.963	1.00	29.68
ATOM	3700	CD2	TYR	1185	24.108	15.951	69.987	1.00	22.03
ATOM	3701	CE2	TYR	1185	25.421	15.530	69.786	1.00	29.50
ATOM	3702	CZ	TYR	1185	26.077	14.822	70.778	1.00	29.49
ATOM	3703	OH	TYR	1185	27.383	14.419	70.590	1.00	34.82
ATOM	3704	C	TYR	1185	19.662	15.811	71.683	1.00	16.48
ATOM	3705	O	TYR	1185	19.668	16.590	72.641	1.00	18.31
ATOM	3706	N	GLY	1186	18.557	15.493	71.027	1.00	14.39
ATOM	3707	CA	GLY	1186	17.290	16.094	71.394	1.00	17.89
ATOM	3708	C	GLY	1186	16.759	15.851	72.791	1.00	18.48
ATOM	3709	O	GLY	1186	16.089	16.709	73.352	1.00	16.58
ATOM	3710	N	GLU	1187	17.072	14.686	73.349	1.00	21.17
ATOM	3711	CA	GLU	1187	16.604	14.298	74.684	1.00	25.64
ATOM	3712	CB	GLU	1187	16.760	12.789	74.891	1.00	29.84
ATOM	3713	CG	GLU	1187	16.086	11.918	73.843	1.00	43.26
ATOM	3714	CD	GLU	1187	16.306	10.412	74.067	1.00	53.15
ATOM	3715	OE1	GLU	1187	17.090	10.023	74.976	1.00	57.92
ATOM	3716	OE2	GLU	1187	15.689	9.608	73.320	1.00	58.40
ATOM	3717	C	GLU	1187	17.301	15.007	75.842	1.00	23.50
ATOM	3718	O	GLU	1187	16.731	15.137	76.909	1.00	26.34
ATOM	3719	N	LEU	1188	18.527	15.471	75.627	1.00	23.32
ATOM	3720	CA	LEU	1188	19.316	16.124	76.685	1.00	23.98
ATOM	3721	CB	LEU	1188	20.796	16.162	76.292	1.00	21.84
ATOM	3722	CG	LEU	1188	21.441	14.846	75.881	1.00	23.54
ATOM	3723	CD1	LEU	1188	22.903	15.092	75.676	1.00	21.29
ATOM	3724	CD2	LEU	1188	21.214	13.774	76.935	1.00	24.90
ATOM	3725	C	LEU	1188	18.924	17.544	77.096	1.00	25.44
ATOM	3726	O	LEU	1188	19.505	18.098	78.022	1.00	27.28
ATOM	3727	N	LEU	1189	17.963	18.137	76.408	1.00	23.92
ATOM	3728	CA	LEU	1189	17.574	19.499	76.704	1.00	22.62

ATOM	3729	CB	LEU	1189	18.669	20.406	76.164	1.00	23.20
ATOM	3730	CG	LEU	1189	18.714	21.906	76.382	1.00	28.40
ATOM	3731	CD1	LEU	1189	18.289	22.306	77.805	1.00	29.50
ATOM	3732	CD2	LEU	1189	20.147	22.325	76.078	1.00	28.26
ATOM	3733	C	LEU	1189	16.259	19.674	75.966	1.00	21.16
ATOM	3734	O	LEU	1189	16.226	19.718	74.731	1.00	22.49
ATOM	3735	N	THR	1190	15.166	19.694	76.718	1.00	17.77
ATOM	3736	CA	THR	1190	13.854	19.786	76.117	1.00	17.89
ATOM	3737	CB	THR	1190	13.129	18.414	76.183	1.00	19.73
ATOM	3738	OG1	THR	1190	12.396	18.296	77.414	1.00	17.28
ATOM	3739	CG2	THR	1190	14.126	17.266	76.086	1.00	16.68
ATOM	3740	C	THR	1190	12.928	20.806	76.758	1.00	19.15
ATOM	3741	O	THR	1190	13.162	21.251	77.879	1.00	19.40
ATOM	3742	N	LEU	1191	11.872	21.151	76.023	1.00	18.69
ATOM	3743	CA	LEU	1191	10.834	22.060	76.467	1.00	18.70
ATOM	3744	CB	LEU	1191	11.146	23.528	76.111	1.00	18.03
ATOM	3745	CG	LEU	1191	10.037	24.578	76.333	1.00	16.92
ATOM	3746	CD1	LEU	1191	9.377	24.428	77.703	1.00	20.03
ATOM	3747	CD2	LEU	1191	10.598	25.969	76.166	1.00	16.14
ATOM	3748	C	LEU	1191	9.596	21.589	75.733	1.00	21.04
ATOM	3749	O	LEU	1191	9.321	22.031	74.609	1.00	23.15
ATOM	3750	N	PRO	1192	8.868	20.622	76.318	1.00	20.18
ATOM	3751	CD	PRO	1192	9.174	19.895	77.571	1.00	17.23
ATOM	3752	CA	PRO	1192	7.658	20.100	75.689	1.00	17.70
ATOM	3753	CB	PRO	1192	7.199	19.017	76.665	1.00	18.57
ATOM	3754	CG	PRO	1192	8.497	18.580	77.339	1.00	18.31
ATOM	3755	C	PRO	1192	6.580	21.150	75.516	1.00	17.73
ATOM	3756	O	PRO	1192	6.597	22.186	76.160	1.00	18.36
ATOM	3757	N	ASN	1193	5.720	20.932	74.534	1.00	19.37
ATOM	3758	CA	ASN	1193	4.569	21.812	74.294	1.00	20.61
ATOM	3759	CB	ASN	1193	4.275	21.949	72.786	1.00	16.90
ATOM	3760	CG	ASN	1193	5.257	22.873	72.068	1.00	17.65
ATOM	3761	OD1	ASN	1193	5.706	22.575	70.956	1.00	16.75
ATOM	3762	ND2	ASN	1193	5.556	24.017	72.676	1.00	13.50
ATOM	3763	C	ASN	1193	3.449	21.005	74.963	1.00	19.75
ATOM	3764	O	ASN	1193	3.695	19.873	75.391	1.00	20.56
ATOM	3765	N	ALA	1194	2.239	21.551	75.064	1.00	20.80
ATOM	3766	CA	ALA	1194	1.138	20.792	75.677	1.00	21.19
ATOM	3767	CB	ALA	1194	-0.152	21.614	75.632	1.00	22.25
ATOM	3768	C	ALA	1194	0.982	19.508	74.858	1.00	23.49
ATOM	3769	O	ALA	1194	0.991	19.557	73.628	1.00	23.79
ATOM	3770	N	ASP	1195	0.914	18.362	75.534	1.00	26.44

ATOM	3771	CA	ASP	1195	0.783	17.075	74.844	1.00	26.99
ATOM	3772	CB	ASP	1195	1.189	15.919	75.760	1.00	26.29
ATOM	3773	CG	ASP	1195	1.429	14.600	75.008	1.00	28.98
ATOM	3774	OD1	ASP	1195	2.449	13.929	75.293	1.00	28.48
ATOM	3775	OD2	ASP	1195	0.597	14.201	74.168	1.00	25.15
ATOM	3776	C	ASP	1195	-0.686	16.951	74.471	1.00	27.65
ATOM	3777	O	ASP	1195	-1.552	16.918	75.349	1.00	27.80
ATOM	3778	N	ARG	1196	-0.952	16.889	73.169	1.00	25.41
ATOM	3779	CA	ARG	1196	-2.315	16.831	72.651	1.00	26.66
ATOM	3780	CB	ARG	1196	-2.313	17.423	71.246	1.00	27.14
ATOM	3781	CG	ARG	1196	-1.682	18.801	71.170	1.00	24.40
ATOM	3782	CD	ARG	1196	-2.765	19.843	70.975	1.00	22.58
ATOM	3783	NE	ARG	1196	-2.286	21.216	71.003	1.00	18.11
ATOM	3784	CZ	ARG	1196	-3.115	22.258	71.045	1.00	15.04
ATOM	3785	NH1	ARG	1196	-2.643	23.492	71.073	1.00	16.01
ATOM	3786	NH2	ARG	1196	-4.429	22.059	71.068	1.00	17.08
ATOM	3787	C	ARG	1196	-2.930	15.429	72.643	1.00	29.04
ATOM	3788	O	ARG	1196	-4.135	15.271	72.438	1.00	31.77
ATOM	3789	N	VAL	1197	-2.070	14.418	72.831	1.00	29.21
ATOM	3790	CA	VAL	1197	-2.482	13.000	72.882	1.00	27.93
ATOM	3791	CB	VAL	1197	-1.390	12.061	72.273	1.00	27.66
ATOM	3792	CG1	VAL	1197	-1.837	10.619	72.314	1.00	27.24
ATOM	3793	CG2	VAL	1197	-1.100	12.470	70.828	1.00	29.46
ATOM	3794	C	VAL	1197	-2.709	12.588	74.330	1.00	26.26
ATOM	3795	O	VAL	1197	-3.779	12.121	74.689	1.00	25.25
ATOM	3796	N	ASN	1198	-1.654	12.765	75.135	1.00	24.45
ATOM	3797	CA	ASN	1198	-1.646	12.427	76.549	1.00	26.60
ATOM	3798	CB	ASN	1198	-0.525	11.419	76.806	1.00	26.14
ATOM	3799	CG	ASN	1198	-0.779	10.103	76.095	1.00	25.06
ATOM	3800	OD1	ASN	1198	-1.803	9.489	76.283	1.00	26.52
ATOM	3801	ND2	ASN	1198	0.169	9.701	75.284	1.00	26.67
ATOM	3802	C	ASN	1198	-1.381	13.681	77.360	1.00	24.79
ATOM	3803	O	ASN	1198	-0.296	13.949	77.856	1.00	24.31
ATOM	3804	N	PRO	1199	-2.442	14.529	77.488	1.00	24.14
ATOM	3805	CD	PRO	1199	-3.808	14.239	77.082	1.00	25.24
ATOM	3806	CA	PRO	1199	-2.350	15.806	78.182	1.00	26.26
ATOM	3807	CB	PRO	1199	-3.798	16.332	78.115	1.00	26.38
ATOM	3808	CG	PRO	1199	-4.591	15.062	78.058	1.00	27.20
ATOM	3809	C	PRO	1199	-1.768	15.837	79.582	1.00	27.15
ATOM	3810	O	PRO	1199	-1.398	16.914	80.051	1.00	27.24
ATOM	3811	N	GLU	1200	-1.648	14.684	80.226	1.00	28.42
ATOM	3812	CA	GLU	1200	-1.084	14.658	81.574	1.00	31.82

ATOM	3813	CB	GLU	1200	-1.582	13.449	82.364	1.00	33.23
ATOM	3814	CG	GLU	1200	-0.846	12.153	82.062	1.00	35.92
ATOM	3815	CD	GLU	1200	-1.411	11.426	80.869	1.00	37.39
ATOM	3816	OE1	GLU	1200	-2.503	11.818	80.391	1.00	32.33
ATOM	3817	OE2	GLU	1200	-0.761	10.449	80.427	1.00	40.28
ATOM	3818	C	GLU	1200	0.448	14.732	81.612	1.00	31.91
ATOM	3819	O	GLU	1200	1.043	14.811	82.688	1.00	34.19
ATOM	3820	N	ASN	1201	1.095	14.684	80.452	1.00	29.86
ATOM	3821	CA	ASN	1201	2.540	14.772	80.402	1.00	29.04
ATOM	3822	CB	ASN	1201	3.061	14.300	79.060	1.00	30.80
ATOM	3823	CG	ASN	1201	2.899	12.827	78.887	1.00	32.54
ATOM	3824	OD1	ASN	1201	2.434	12.145	79.786	1.00	36.70
ATOM	3825	ND2	ASN	1201	3.268	12.321	77.726	1.00	33.96
ATOM	3826	C	ASN	1201	3.038	16.178	80.707	1.00	28.02
ATOM	3827	O	ASN	1201	2.395	17.171	80.369	1.00	25.99
ATOM	3828	N	SER	1202	4.179	16.242	81.376	1.00	26.88
ATOM	3829	CA	SER	1202	4.789	17.505	81.783	1.00	26.14
ATOM	3830	CB	SER	1202	6.025	17.211	82.638	1.00	27.51
ATOM	3831	OG	SER	1202	6.626	18.391	83.108	1.00	32.08
ATOM	3832	C	SER	1202	5.182	18.387	80.610	1.00	24.14
ATOM	3833	O	SER	1202	5.483	17.901	79.516	1.00	25.89
ATOM	3834	N	ILE	1203	5.171	19.690	80.852	1.00	22.05
ATOM	3835	CA	ILE	1203	5.557	20.665	79.844	1.00	20.01
ATOM	3836	CB	ILE	1203	4.382	21.558	79.433	1.00	16.41
ATOM	3837	CG2	ILE	1203	3.358	20.748	78.692	1.00	17.52
ATOM	3838	CG1	ILE	1203	3.750	22.225	80.646	1.00	17.39
ATOM	3839	CD1	ILE	1203	2.850	23.400	80.282	1.00	16.71
ATOM	3840	C	ILE	1203	6.714	21.523	80.353	1.00	19.95
ATOM	3841	O	ILE	1203	7.094	22.513	79.735	1.00	19.23
ATOM	3842	N	HIS	1204	7.300	21.119	81.478	1.00	20.52
ATOM	3843	CA	HIS	1204	8.407	21.874	82.057	1.00	18.95
ATOM	3844	CB	HIS	1204	8.534	21.579	83.569	1.00	18.01
ATOM	3845	CG	HIS	1204	7.492	22.265	84.407	1.00	17.97
ATOM	3846	CD2	HIS	1204	7.161	23.571	84.514	1.00	18.81
ATOM	3847	ND1	HIS	1204	6.633	21.582	85.244	1.00	19.63
ATOM	3848	CE1	HIS	1204	5.813	22.440	85.824	1.00	16.35
ATOM	3849	NE2	HIS	1204	6.116	23.654	85.400	1.00	21.14
ATOM	3850	C	HIS	1204	9.739	21.623	81.343	1.00	20.25
ATOM	3851	O	HIS	1204	10.009	20.518	80.847	1.00	21.07
ATOM	3852	N	LEU	1205	10.560	22.662	81.292	1.00	19.28
ATOM	3853	CA	LEU	1205	11.868	22.598	80.663	1.00	18.96
ATOM	3854	CB	LEU	1205	12.546	23.978	80.775	1.00	14.69

ATOM	3855	CG	LEU	1205	13.909	24.283	80.143	1.00	16.43
ATOM	3856	CD1	LEU	1205	14.071	25.781	80.060	1.00	17.12
ATOM	3857	CD2	LEU	1205	15.088	23.651	80.897	1.00	16.98
ATOM	3858	C	LEU	1205	12.706	21.530	81.357	1.00	23.22
ATOM	3859	O	LEU	1205	12.696	21.455	82.587	1.00	26.52
ATOM	3860	N	THR	1206	13.355	20.653	80.588	1.00	24.11
ATOM	3861	CA	THR	1206	14.221	19.630	81.179	1.00	22.98
ATOM	3862	CB	THR	1206	13.805	18.178	80.842	1.00	19.44
ATOM	3863	OG1	THR	1206	14.120	17.868	79.481	1.00	20.37
ATOM	3864	CG2	THR	1206	12.347	17.994	81.072	1.00	19.69
ATOM	3865	C	THR	1206	15.631	19.875	80.699	1.00	22.75
ATOM	3866	O	THR	1206	15.855	20.622	79.753	1.00	22.76
ATOM	3867	N	MET	1207	16.582	19.222	81.339	1.00	23.87
ATOM	3868	CA	MET	1207	17.972	19.416	80.981	1.00	25.90
ATOM	3869	CB	MET	1207	18.405	20.823	81.402	1.00	23.56
ATOM	3870	CG	MET	1207	19.842	21.189	81.082	1.00	30.46
ATOM	3871	SD	MET	1207	20.169	22.935	81.473	1.00	38.32
ATOM	3872	CE	MET	1207	19.835	22.925	83.199	1.00	40.09
ATOM	3873	C	MET	1207	18.836	18.359	81.646	1.00	27.53
ATOM	3874	O	MET	1207	18.683	18.100	82.835	1.00	28.39
ATOM	3875	N	ALA	1208	19.699	17.719	80.868	1.00	28.82
ATOM	3876	CA	ALA	1208	20.613	16.702	81.372	1.00	29.81
ATOM	3877	CB	ALA	1208	20.643	15.506	80.432	1.00	25.85
ATOM	3878	C	ALA	1208	21.982	17.375	81.420	1.00	33.47
ATOM	3879	O	ALA	1208	22.971	16.834	80.924	1.00	35.64
ATOM	3880	N	GLY	1209	22.006	18.558	82.001	1.00	35.90
ATOM	3881	CA	GLY	1209	23.207	19.372	82.121	1.00	38.65
ATOM	3882	C	GLY	1209	24.581	18.739	82.133	1.00	41.48
ATOM	3883	O	GLY	1209	25.518	19.293	81.552	1.00	41.51
ATOM	3884	N	ASN	1210	24.719	17.587	82.783	1.00	43.22
ATOM	3885	CA	ASN	1210	26.014	16.919	82.856	1.00	46.71
ATOM	3886	CB	ASN	1210	25.942	15.624	83.678	1.00	51.87
ATOM	3887	CG	ASN	1210	25.533	15.878	85.133	1.00	58.55
ATOM	3888	OD1	ASN	1210	25.367	17.011	85.549	1.00	62.97
ATOM	3889	ND2	ASN	1210	25.375	14.798	85.896	1.00	59.03
ATOM	3890	C	ASN	1210	26.571	16.622	81.476	1.00	46.40
ATOM	3891	O	ASN	1210	27.701	17.017	81.179	1.00	47.99
ATOM	3892	N	GLU	1211	25.743	16.047	80.625	1.00	44.85
ATOM	3893	CA	GLU	1211	26.136	15.652	79.276	1.00	41.93
ATOM	3894	CB	GLU	1211	25.228	14.523	78.779	1.00	45.08
ATOM	3895	CG	GLU	1211	25.126	13.345	79.754	1.00	49.29
ATOM	3896	CD	GLU	1211	23.761	13.223	80.424	1.00	52.44

ATOM	3897	OE1	GLU	1211	23.560	13.847	81.491	1.00	54.26
ATOM	3898	OE2	GLU	1211	22.890	12.498	79.885	1.00	53.73
ATOM	3899	C	GLU	1211	26.124	16.809	78.273	1.00	37.92
ATOM	3900	O	GLU	1211	26.890	16.840	77.300	1.00	37.21
ATOM	3901	N	VAL	1212	25.244	17.766	78.516	1.00	34.26
ATOM	3902	CA	VAL	1212	25.082	18.950	77.690	1.00	28.78
ATOM	3903	CB	VAL	1212	23.877	19.780	78.214	1.00	27.83
ATOM	3904	CG1	VAL	1212	23.704	21.050	77.429	1.00	32.55
ATOM	3905	CG2	VAL	1212	22.598	18.947	78.143	1.00	24.55
ATOM	3906	C	VAL	1212	26.373	19.783	77.731	1.00	26.86
ATOM	3907	O	VAL	1212	26.896	20.200	76.695	1.00	23.30
ATOM	3908	N	PHE	1213	26.919	19.956	78.931	1.00	25.48
ATOM	3909	CA	PHE	1213	28.133	20.732	79.168	1.00	23.34
ATOM	3910	CB	PHE	1213	28.587	20.556	80.626	1.00	24.46
ATOM	3911	CG	PHE	1213	29.803	21.363	80.988	1.00	22.44
ATOM	3912	CD1	PHE	1213	31.071	20.834	80.823	1.00	21.49
ATOM	3913	CD2	PHE	1213	29.676	22.653	81.496	1.00	25.37
ATOM	3914	CE1	PHE	1213	32.199	21.581	81.156	1.00	23.13
ATOM	3915	CE2	PHE	1213	30.795	23.408	81.832	1.00	25.92
ATOM	3916	CZ	PHE	1213	32.057	22.873	81.660	1.00	23.12
ATOM	3917	C	PHE	1213	29.285	20.378	78.246	1.00	21.76
ATOM	3918	O	PHE	1213	29.897	21.253	77.650	1.00	20.03
ATOM	3919	N	LYS	1214	29.592	19.094	78.160	1.00	23.70
ATOM	3920	CA	LYS	1214	30.689	18.616	77.329	1.00	27.37
ATOM	3921	CB	LYS	1214	30.807	17.104	77.478	1.00	34.33
ATOM	3922	CG	LYS	1214	31.740	16.435	76.480	1.00	45.27
ATOM	3923	CD	LYS	1214	31.317	14.986	76.227	1.00	54.50
ATOM	3924	CE	LYS	1214	32.257	14.294	75.257	1.00	59.05
ATOM	3925	NZ	LYS	1214	33.635	14.234	75.825	1.00	61.45
ATOM	3926	C	LYS	1214	30.580	18.991	75.842	1.00	27.07
ATOM	3927	O	LYS	1214	31.536	19.488	75.249	1.00	25.12
ATOM	3928	N	VAL	1215	29.413	18.747	75.241	1.00	26.62
ATOM	3929	CA	VAL	1215	29.207	19.042	73.824	1.00	22.95
ATOM	3930	CB	VAL	1215	27.915	18.411	73.266	1.00	21.07
ATOM	3931	CG1	VAL	1215	27.754	18.768	71.772	1.00	19.39
ATOM	3932	CG2	VAL	1215	27.946	16.905	73.447	1.00	16.64
ATOM	3933	C	VAL	1215	29.144	20.541	73.597	1.00	24.18
ATOM	3934	O	VAL	1215	29.719	21.039	72.627	1.00	25.74
ATOM	3935	N	ALA	1216	28.508	21.257	74.527	1.00	22.60
ATOM	3936	CA	ALA	1216	28.363	22.703	74.438	1.00	21.09
ATOM	3937	CB	ALA	1216	27.566	23.236	75.620	1.00	20.72
ATOM	3938	C	ALA	1216	29.686	23.432	74.330	1.00	22.49

ATOM	3939	O	ALA	1216	29.877	24.200	73.389	1.00	22.15
ATOM	3940	N	VAL	1217	30.607	23.226	75.278	1.00	23.60
ATOM	3941	CA	VAL	1217	31.882	23.938	75.179	1.00	22.06
ATOM	3942	CB	VAL	1217	32.699	24.021	76.526	1.00	22.31
ATOM	3943	CG1	VAL	1217	31.869	23.583	77.732	1.00	19.19
ATOM	3944	CG2	VAL	1217	34.010	23.302	76.423	1.00	21.94
ATOM	3945	C	VAL	1217	32.734	23.471	73.989	1.00	20.87
ATOM	3946	O	VAL	1217	33.499	24.245	73.419	1.00	21.13
ATOM	3947	N	THR	1218	32.594	22.215	73.598	1.00	20.51
ATOM	3948	CA	THR	1218	33.333	21.725	72.440	1.00	23.31
ATOM	3949	CB	THR	1218	33.034	20.255	72.189	1.00	25.31
ATOM	3950	OG1	THR	1218	33.418	19.494	73.335	1.00	28.30
ATOM	3951	CG2	THR	1218	33.795	19.751	70.978	1.00	27.34
ATOM	3952	C	THR	1218	32.913	22.519	71.192	1.00	21.85
ATOM	3953	O	THR	1218	33.751	23.083	70.482	1.00	22.08
ATOM	3954	N	GLU	1219	31.606	22.582	70.955	1.00	21.34
ATOM	3955	CA	GLU	1219	31.067	23.274	69.799	1.00	20.97
ATOM	3956	CB	GLU	1219	29.598	22.916	69.571	1.00	19.90
ATOM	3957	CG	GLU	1219	29.324	21.428	69.328	1.00	20.34
ATOM	3958	CD	GLU	1219	30.236	20.768	68.283	1.00	27.73
ATOM	3959	OE1	GLU	1219	30.259	19.513	68.243	1.00	31.98
ATOM	3960	OE2	GLU	1219	30.931	21.471	67.505	1.00	28.09
ATOM	3961	C	GLU	1219	31.237	24.771	69.873	1.00	21.99
ATOM	3962	O	GLU	1219	31.597	25.396	68.879	1.00	22.27
ATOM	3963	N	LEU	1220	30.990	25.348	71.042	1.00	21.37
ATOM	3964	CA	LEU	1220	31.143	26.784	71.207	1.00	20.35
ATOM	3965	CB	LEU	1220	30.698	27.216	72.598	1.00	20.34
ATOM	3966	CG	LEU	1220	29.182	27.064	72.788	1.00	22.35
ATOM	3967	CD1	LEU	1220	28.811	27.210	74.252	1.00	20.25
ATOM	3968	CD2	LEU	1220	28.435	28.084	71.915	1.00	20.09
ATOM	3969	C	LEU	1220	32.565	27.223	70.919	1.00	20.36
ATOM	3970	O	LEU	1220	32.784	28.335	70.455	1.00	19.98
ATOM	3971	N	ALA	1221	33.532	26.344	71.178	1.00	21.23
ATOM	3972	CA	ALA	1221	34.943	26.655	70.902	1.00	21.94
ATOM	3973	CB	ALA	1221	35.842	25.746	71.704	1.00	23.00
ATOM	3974	C	ALA	1221	35.225	26.483	69.391	1.00	23.05
ATOM	3975	O	ALA	1221	35.832	27.351	68.758	1.00	23.61
ATOM	3976	N	HIS	1222	34.730	25.378	68.824	1.00	22.67
ATOM	3977	CA	HIS	1222	34.899	25.048	67.409	1.00	23.02
ATOM	3978	CB	HIS	1222	34.104	23.789	67.062	1.00	25.87
ATOM	3979	CG	HIS	1222	34.770	22.507	67.445	1.00	29.27
ATOM	3980	CD2	HIS	1222	34.329	21.225	67.382	1.00	30.21

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ATOM	3981	ND1	HIS	1222	36.048	22.446	67.968	1.00	29.56
ATOM	3982	CE1	HIS	1222	36.361	21.186	68.208	1.00	30.91
ATOM	3983	NE2	HIS	1222	35.340	20.426	67.864	1.00	30.96
ATOM	3984	C	HIS	1222	34.405	26.148	66.480	1.00	23.53
ATOM	3985	O	HIS	1222	35.132	26.609	65.596	1.00	23.18
ATOM	3986	N	ILE	1223	33.168	26.579	66.703	1.00	22.70
ATOM	3987	CA	ILE	1223	32.549	27.574	65.852	1.00	22.24
ATOM	3988	CB	ILE	1223	31.035	27.752	66.194	1.00	22.90
ATOM	3989	CG2	ILE	1223	30.852	28.623	67.445	1.00	21.43
ATOM	3990	CG1	ILE	1223	30.283	28.333	64.988	1.00	21.27
ATOM	3991	CD1	ILE	1223	28.779	28.040	64.973	1.00	19.35
ATOM	3992	C	ILE	1223	33.329	28.878	65.821	1.00	22.75
ATOM	3993	O	ILE	1223	33.347	29.561	64.802	1.00	21.41
ATOM	3994	N	VAL	1224	34.019	29.204	66.909	1.00	22.98
ATOM	3995	CA	VAL	1224	34.839	30.419	66.927	1.00	23.79
ATOM	3996	CB	VAL	1224	35.440	30.670	68.317	1.00	24.20
ATOM	3997	CG1	VAL	1224	36.632	31.669	68.230	1.00	24.04
ATOM	3998	CG2	VAL	1224	34.354	31.201	69.230	1.00	19.78
ATOM	3999	C	VAL	1224	35.968	30.268	65.900	1.00	23.52
ATOM	4000	O	VAL	1224	36.249	31.172	65.102	1.00	21.70
ATOM	4001	N	ASP	1225	36.581	29.092	65.902	1.00	23.20
ATOM	4002	CA	ASP	1225	37.651	28.818	64.967	1.00	25.24
ATOM	4003	CB	ASP	1225	38.411	27.559	65.375	1.00	26.85
ATOM	4004	CG	ASP	1225	39.201	27.757	66.650	1.00	34.30
ATOM	4005	OD1	ASP	1225	39.355	26.772	67.419	1.00	34.13
ATOM	4006	OD2	ASP	1225	39.639	28.916	66.885	1.00	35.14
ATOM	4007	C	ASP	1225	37.106	28.683	63.559	1.00	23.86
ATOM	4008	O	ASP	1225	37.766	29.080	62.599	1.00	21.91
ATOM	4009	N	GLU	1226	35.891	28.149	63.438	1.00	25.41
ATOM	4010	CA	GLU	1226	35.266	27.976	62.124	1.00	21.96
ATOM	4011	CB	GLU	1226	33.950	27.207	62.235	1.00	21.17
ATOM	4012	CG	GLU	1226	33.331	26.920	60.866	1.00	26.59
ATOM	4013	CD	GLU	1226	31.942	26.322	60.933	1.00	28.45
ATOM	4014	OE1	GLU	1226	31.401	25.927	59.878	1.00	30.33
ATOM	4015	OE2	GLU	1226	31.380	26.263	62.043	1.00	32.54
ATOM	4016	C	GLU	1226	34.979	29.337	61.527	1.00	20.33
ATOM	4017	O	GLU	1226	35.285	29.605	60.372	1.00	19.37
ATOM	4018	N	THR	1227	34.387	30.191	62.349	1.00	20.52
ATOM	4019	CA	THR	1227	34.013	31.537	61.968	1.00	18.76
ATOM	4020	CB	THR	1227	33.297	32.224	63.137	1.00	16.49
ATOM	4021	OG1	THR	1227	32.108	31.484	63.451	1.00	16.97
ATOM	4022	CG2	THR	1227	32.915	33.656	62.782	1.00	18.44

ATOM	4023	C	THR	1227	35.200	32.366	61.511	1.00	20.80
ATOM	4024	O	THR	1227	35.155	32.989	60.447	1.00	21.17
ATOM	4025	N	LEU	1228	36.288	32.331	62.272	1.00	21.29
ATOM	4026	CA	LEU	1228	37.464	33.111	61.911	1.00	20.73
ATOM	4027	CB	LEU	1228	38.395	33.274	63.117	1.00	21.39
ATOM	4028	CG	LEU	1228	37.927	34.204	64.247	1.00	22.86
ATOM	4029	CD1	LEU	1228	38.962	34.185	65.367	1.00	24.04
ATOM	4030	CD2	LEU	1228	37.691	35.634	63.747	1.00	21.13
ATOM	4031	C	LEU	1228	38.203	32.530	60.700	1.00	21.83
ATOM	4032	O	LEU	1228	38.605	33.280	59.812	1.00	23.87
ATOM	4033	N	ALA	1229	38.348	31.205	60.633	1.00	21.69
ATOM	4034	CA	ALA	1229	39.024	30.557	59.500	1.00	21.57
ATOM	4035	CB	ALA	1229	39.188	29.070	59.752	1.00	24.21
ATOM	4036	C	ALA	1229	38.312	30.781	58.167	1.00	22.52
ATOM	4037	O	ALA	1229	38.965	31.021	57.146	1.00	21.09
ATOM	4038	N	ALA	1230	36.980	30.711	58.164	1.00	23.40
ATOM	4039	CA	ALA	1230	36.200	30.934	56.930	1.00	23.19
ATOM	4040	CB	ALA	1230	34.688	30.737	57.184	1.00	19.20
ATOM	4041	C	ALA	1230	36.448	32.338	56.388	1.00	22.28
ATOM	4042	O	ALA	1230	36.198	32.622	55.217	1.00	23.94
ATOM	4043	N	ASN	1231	36.923	33.226	57.248	1.00	20.11
ATOM	4044	CA	ASN	1231	37.186	34.583	56.836	1.00	18.60
ATOM	4045	CB	ASN	1231	36.479	35.539	57.781	1.00	17.42
ATOM	4046	CG	ASN	1231	34.971	35.386	57.718	1.00	22.62
ATOM	4047	OD1	ASN	1231	34.377	34.725	58.553	1.00	24.07
ATOM	4048	ND2	ASN	1231	34.350	35.961	56.700	1.00	19.70
ATOM	4049	C	ASN	1231	38.659	34.902	56.748	1.00	18.85
ATOM	4050	O	ASN	1231	39.029	36.056	56.604	1.00	19.60
ATOM	4051	N	ASN	1232	39.497	33.872	56.800	1.00	21.16
ATOM	4052	CA	ASN	1232	40.953	34.042	56.746	1.00	23.23
ATOM	4053	CB	ASN	1232	41.419	34.489	55.354	1.00	25.36
ATOM	4054	CG	ASN	1232	41.345	33.375	54.316	1.00	28.55
ATOM	4055	OD1	ASN	1232	41.190	32.202	54.640	1.00	30.16
ATOM	4056	ND2	ASN	1232	41.451	33.748	53.058	1.00	32.52
ATOM	4057	C	ASN	1232	41.449	35.032	57.785	1.00	23.68
ATOM	4058	O	ASN	1232	42.359	35.813	57.507	1.00	23.26
ATOM	4059	N	LEU	1233	40.855	34.993	58.982	1.00	24.51
ATOM	4060	CA	LEU	1233	41.222	35.888	60.087	1.00	22.34
ATOM	4061	CB	LEU	1233	39.993	36.597	60.642	1.00	21.38
ATOM	4062	CG	LEU	1233	39.274	37.593	59.727	1.00	25.14
ATOM	4063	CD1	LEU	1233	37.883	37.901	60.271	1.00	24.63
ATOM	4064	CD2	LEU	1233	40.105	38.864	59.541	1.00	21.04

ATOM	4065	C	LEU	1233	41.916	35.139	61.220	1.00	22.79
ATOM	4066	O	LEU	1233	41.606	33.983	61.489	1.00	21.42
ATOM	4067	N	ASP	1234	42.897	35.790	61.841	1.00	24.89
ATOM	4068	CA	ASP	1234	43.627	35.197	62.965	1.00	26.53
ATOM	4069	CB	ASP	1234	45.071	35.697	63.023	1.00	26.83
ATOM	4070	CG	ASP	1234	45.921	35.188	61.875	1.00	25.00
ATOM	4071	OD1	ASP	1234	46.696	36.001	61.341	1.00	24.62
ATOM	4072	OD2	ASP	1234	45.856	33.981	61.542	1.00	24.63
ATOM	4073	C	ASP	1234	42.935	35.617	64.265	1.00	27.79
ATOM	4074	O	ASP	1234	42.363	36.713	64.340	1.00	25.53
ATOM	4075	N	ARG	1235	43.084	34.793	65.306	1.00	30.87
ATOM	4076	CA	ARG	1235	42.495	35.063	66.622	1.00	34.32
ATOM	4077	CB	ARG	1235	42.939	34.004	67.635	1.00	39.29
ATOM	4078	CG	ARG	1235	41.839	32.995	68.037	1.00	51.19
ATOM	4079	CD	ARG	1235	42.290	32.032	69.178	1.00	58.84
ATOM	4080	NE	ARG	1235	41.539	30.771	69.186	1.00	63.81
ATOM	4081	CZ	ARG	1235	42.076	29.564	68.957	1.00	66.36
ATOM	4082	NH1	ARG	1235	41.310	28.481	68.976	1.00	66.51
ATOM	4083	NH2	ARG	1235	43.371	29.426	68.681	1.00	67.44
ATOM	4084	C	ARG	1235	42.812	36.468	67.154	1.00	33.28
ATOM	4085	O	ARG	1235	42.022	37.052	67.887	1.00	34.17
ATOM	4086	N	SER	1236	43.955	37.012	66.752	1.00	32.83
ATOM	4087	CA	SER	1236	44.383	38.344	67.170	1.00	32.71
ATOM	4088	CB	SER	1236	45.818	38.602	66.708	1.00	36.31
ATOM	4089	OG	SER	1236	45.960	38.340	65.310	1.00	40.11
ATOM	4090	C	SER	1236	43.518	39.452	66.609	1.00	32.31
ATOM	4091	O	SER	1236	43.683	40.615	66.967	1.00	33.55
ATOM	4092	N	GLN	1237	42.653	39.115	65.666	1.00	34.04
ATOM	4093	CA	GLN	1237	41.799	40.127	65.076	1.00	33.70
ATOM	4094	CB	GLN	1237	41.540	39.804	63.605	1.00	39.99
ATOM	4095	CG	GLN	1237	41.522	41.043	62.721	1.00	48.60
ATOM	4096	CD	GLN	1237	42.843	41.805	62.746	1.00	54.35
ATOM	4097	OE1	GLN	1237	43.914	41.220	62.951	1.00	56.49
ATOM	4098	NE2	GLN	1237	42.771	43.122	62.545	1.00	56.79
ATOM	4099	C	GLN	1237	40.489	40.315	65.836	1.00	30.88
ATOM	4100	O	GLN	1237	39.835	41.354	65.732	1.00	31.37
ATOM	4101	N	LEU	1238	40.128	39.325	66.637	1.00	28.27
ATOM	4102	CA	LEU	1238	38.885	39.396	67.393	1.00	27.61
ATOM	4103	CB	LEU	1238	38.470	38.000	67.836	1.00	25.13
ATOM	4104	CG	LEU	1238	37.047	37.539	67.543	1.00	25.38
ATOM	4105	CD1	LEU	1238	36.735	36.417	68.520	1.00	28.41
ATOM	4106	CD2	LEU	1238	36.037	38.647	67.718	1.00	23.26

ATOM	4107	C	LEU	1238	39.032	40.307	68.608	1.00	26.45
ATOM	4108	O	LEU	1238	40.010	40.236	69.331	1.00	28.54
ATOM	4109	N	ASP	1239	38.059	41.167	68.841	1.00	26.08
ATOM	4110	CA	ASP	1239	38.136	42.054	69.991	1.00	26.07
ATOM	4111	CB	ASP	1239	37.802	43.494	69.594	1.00	26.44
ATOM	4112	CG	ASP	1239	38.802	44.081	68.618	1.00	32.22
ATOM	4113	OD1	ASP	1239	38.415	44.386	67.467	1.00	31.78
ATOM	4114	OD2	ASP	1239	39.980	44.242	69.001	1.00	36.01
ATOM	4115	C	ASP	1239	37.183	41.610	71.099	1.00	26.18
ATOM	4116	O	ASP	1239	37.522	41.656	72.293	1.00	25.43
ATOM	4117	N	TRP	1240	36.007	41.146	70.691	1.00	24.51
ATOM	4118	CA	TRP	1240	34.986	40.756	71.636	1.00	23.52
ATOM	4119	CB	TRP	1240	33.949	41.869	71.720	1.00	23.61
ATOM	4120	CG	TRP	1240	34.437	43.108	72.349	1.00	26.21
ATOM	4121	CD2	TRP	1240	34.691	43.305	73.739	1.00	27.49
ATOM	4122	CE2	TRP	1240	35.104	44.644	73.904	1.00	29.08
ATOM	4123	CE3	TRP	1240	34.609	42.473	74.871	1.00	28.37
ATOM	4124	CD1	TRP	1240	34.705	44.302	71.734	1.00	25.03
ATOM	4125	NE1	TRP	1240	35.104	45.231	72.660	1.00	26.68
ATOM	4126	CZ2	TRP	1240	35.440	45.178	75.165	1.00	28.51
ATOM	4127	CZ3	TRP	1240	34.941	43.004	76.122	1.00	27.51
ATOM	4128	CH2	TRP	1240	35.348	44.342	76.256	1.00	28.39
ATOM	4129	C	TRP	1240	34.252	39.487	71.280	1.00	24.04
ATOM	4130	O	TRP	1240	33.956	39.246	70.111	1.00	25.76
ATOM	4131	N	LEU	1241	33.924	38.705	72.300	1.00	23.75
ATOM	4132	CA	LEU	1241	33.140	37.491	72.137	1.00	23.42
ATOM	4133	CB	LEU	1241	33.847	36.266	72.716	1.00	20.26
ATOM	4134	CG	LEU	1241	33.018	34.976	72.802	1.00	21.13
ATOM	4135	CD1	LEU	1241	32.576	34.505	71.417	1.00	21.44
ATOM	4136	CD2	LEU	1241	33.835	33.896	73.464	1.00	17.66
ATOM	4137	C	LEU	1241	31.872	37.759	72.932	1.00	23.13
ATOM	4138	O	LEU	1241	31.950	38.064	74.118	1.00	23.51
ATOM	4139	N	VAL	1242	30.725	37.754	72.269	1.00	21.98
ATOM	4140	CA	VAL	1242	29.464	37.968	72.958	1.00	21.19
ATOM	4141	CB	VAL	1242	28.645	39.133	72.322	1.00	19.77
ATOM	4142	CG1	VAL	1242	27.318	39.351	73.086	1.00	15.77
ATOM	4143	CG2	VAL	1242	29.495	40.416	72.319	1.00	17.04
ATOM	4144	C	VAL	1242	28.727	36.624	72.878	1.00	23.19
ATOM	4145	O	VAL	1242	27.983	36.364	71.922	1.00	23.89
ATOM	4146	N	PRO	1243	28.978	35.730	73.861	1.00	23.68
ATOM	4147	CD	PRO	1243	29.855	35.922	75.040	1.00	23.43
ATOM	4148	CA	PRO	1243	28.353	34.413	73.904	1.00	22.34

ATOM	4149	CB	PRO	1243	29.354	33.616	74.724	1.00	22.47
ATOM	4150	CG	PRO	1243	29.720	34.605	75.801	1.00	20.94
ATOM	4151	C	PRO	1243	26.999	34.418	74.577	1.00	22.05
ATOM	4152	O	PRO	1243	26.595	35.387	75.215	1.00	22.56
ATOM	4153	N	HIS	1244	26.278	33.329	74.384	1.00	22.70
ATOM	4154	CA	HIS	1244	24.990	33.152	75.023	1.00	21.31
ATOM	4155	CB	HIS	1244	24.273	31.964	74.399	1.00	19.33
ATOM	4156	CG	HIS	1244	23.132	31.464	75.213	1.00	21.45
ATOM	4157	CD2	HIS	1244	21.968	32.054	75.567	1.00	20.51
ATOM	4158	ND1	HIS	1244	23.159	30.243	75.851	1.00	22.49
ATOM	4159	CE1	HIS	1244	22.065	30.114	76.576	1.00	25.58
ATOM	4160	NE2	HIS	1244	21.324	31.194	76.422	1.00	24.21
ATOM	4161	C	HIS	1244	25.352	32.858	76.486	1.00	21.03
ATOM	4162	O	HIS	1244	26.219	32.023	76.766	1.00	21.08
ATOM	4163	N	GLN	1245	24.672	33.517	77.413	1.00	20.14
ATOM	4164	CA	GLN	1245	24.965	33.363	78.832	1.00	18.44
ATOM	4165	CB	GLN	1245	24.440	34.592	79.570	1.00	20.64
ATOM	4166	CG	GLN	1245	24.845	35.931	78.928	1.00	20.45
ATOM	4167	CD	GLN	1245	26.337	36.239	79.031	1.00	23.36
ATOM	4168	OE1	GLN	1245	27.000	36.514	78.039	1.00	23.86
ATOM	4169	NE2	GLN	1245	26.857	36.221	80.244	1.00	16.55
ATOM	4170	C	GLN	1245	24.375	32.088	79.418	1.00	19.14
ATOM	4171	O	GLN	1245	23.413	32.140	80.178	1.00	23.45
ATOM	4172	N	ALA	1246	24.943	30.943	79.054	1.00	18.88
ATOM	4173	CA	ALA	1246	24.468	29.636	79.514	1.00	20.38
ATOM	4174	CB	ALA	1246	25.227	28.527	78.759	1.00	18.66
ATOM	4175	C	ALA	1246	24.611	29.461	81.034	1.00	22.30
ATOM	4176	O	ALA	1246	23.669	29.047	81.722	1.00	21.68
ATOM	4177	N	ASN	1247	25.823	29.743	81.511	1.00	23.44
ATOM	4178	CA	ASN	1247	26.242	29.713	82.921	1.00	24.49
ATOM	4179	CB	ASN	1247	26.002	28.359	83.630	1.00	25.43
ATOM	4180	CG	ASN	1247	26.983	27.272	83.214	1.00	26.40
ATOM	4181	OD1	ASN	1247	28.178	27.502	83.076	1.00	27.67
ATOM	4182	ND2	ASN	1247	26.478	26.063	83.074	1.00	30.84
ATOM	4183	C	ASN	1247	27.723	30.072	82.823	1.00	24.37
ATOM	4184	O	ASN	1247	28.299	30.001	81.722	1.00	23.17
ATOM	4185	N	LEU	1248	28.337	30.486	83.928	1.00	23.70
ATOM	4186	CA	LEU	1248	29.747	30.900	83.900	1.00	25.06
ATOM	4187	CB	LEU	1248	30.145	31.533	85.242	1.00	28.01
ATOM	4188	CG	LEU	1248	30.886	32.877	85.301	1.00	27.90
ATOM	4189	CD1	LEU	1248	31.447	33.070	86.703	1.00	29.32
ATOM	4190	CD2	LEU	1248	32.005	32.965	84.288	1.00	30.62

ATOM	4191	C	LEU	1248	30.769	29.812	83.518	1.00	22.35
ATOM	4192	O	LEU	1248	31.750	30.097	82.821	1.00	21.11
ATOM	4193	N	ARG	1249	30.532	28.573	83.943	1.00	20.69
ATOM	4194	CA	ARG	1249	31.453	27.487	83.660	1.00	23.28
ATOM	4195	CB	ARG	1249	31.052	26.231	84.435	1.00	28.68
ATOM	4196	CG	ARG	1249	30.968	26.447	85.953	1.00	36.56
ATOM	4197	CD	ARG	1249	30.549	25.197	86.726	1.00	40.21
ATOM	4198	NE	ARG	1249	31.691	24.437	87.242	1.00	48.02
ATOM	4199	CZ	ARG	1249	32.329	24.722	88.380	1.00	50.24
ATOM	4200	NH1	ARG	1249	33.352	23.974	88.774	1.00	53.01
ATOM	4201	NH2	ARG	1249	31.951	25.755	89.129	1.00	49.50
ATOM	4202	C	ARG	1249	31.580	27.192	82.167	1.00	24.42
ATOM	4203	O	ARG	1249	32.676	26.901	81.671	1.00	23.14
ATOM	4204	N	ILE	1250	30.468	27.244	81.448	1.00	25.18
ATOM	4205	CA	ILE	1250	30.509	27.003	80.013	1.00	22.69
ATOM	4206	CB	ILE	1250	29.091	26.808	79.434	1.00	23.74
ATOM	4207	CG2	ILE	1250	29.095	26.949	77.917	1.00	22.40
ATOM	4208	CG1	ILE	1250	28.600	25.415	79.849	1.00	22.60
ATOM	4209	CD1	ILE	1250	27.235	25.030	79.378	1.00	21.50
ATOM	4210	C	ILE	1250	31.294	28.119	79.328	1.00	21.63
ATOM	4211	O	ILE	1250	32.279	27.852	78.648	1.00	23.56
ATOM	4212	N	ILE	1251	30.956	29.371	79.612	1.00	20.97
ATOM	4213	CA	ILE	1251	31.691	30.478	79.003	1.00	22.11
ATOM	4214	CB	ILE	1251	31.103	31.829	79.395	1.00	21.25
ATOM	4215	CG2	ILE	1251	32.009	32.952	78.902	1.00	21.38
ATOM	4216	CG1	ILE	1251	29.675	31.945	78.846	1.00	22.01
ATOM	4217	CD1	ILE	1251	28.850	33.053	79.489	1.00	17.89
ATOM	4218	C	ILE	1251	33.180	30.435	79.360	1.00	23.30
ATOM	4219	O	ILE	1251	34.023	30.536	78.464	1.00	25.00
ATOM	4220	N	SER	1252	33.499	30.262	80.652	1.00	24.23
ATOM	4221	CA	SER	1252	34.893	30.187	81.136	1.00	24.07
ATOM	4222	CB	SER	1252	34.927	30.017	82.660	1.00	25.87
ATOM	4223	OG	SER	1252	34.428	31.163	83.327	1.00	28.06
ATOM	4224	C	SER	1252	35.680	29.036	80.504	1.00	23.34
ATOM	4225	O	SER	1252	36.883	29.156	80.246	1.00	24.59
ATOM	4226	N	ALA	1253	35.008	27.905	80.323	1.00	22.84
ATOM	4227	CA	ALA	1253	35.614	26.730	79.704	1.00	24.28
ATOM	4228	CB	ALA	1253	34.716	25.495	79.919	1.00	21.44
ATOM	4229	C	ALA	1253	35.842	26.980	78.201	1.00	25.22
ATOM	4230	O	ALA	1253	36.876	26.583	77.643	1.00	23.10
ATOM	4231	N	THR	1254	34.884	27.657	77.566	1.00	26.51
ATOM	4232	CA	THR	1254	34.960	27.979	76.137	1.00	26.25

ATOM	4233	CB	THR	1254	33.662	28.667	75.648	1.00	21.99
ATOM	4234	OG1	THR	1254	32.547	27.802	75.882	1.00	20.50
ATOM	4235	CG2	THR	1254	33.743	28.971	74.162	1.00	23.91
ATOM	4236	C	THR	1254	36.169	28.886	75.870	1.00	27.21
ATOM	4237	O	THR	1254	36.975	28.609	74.977	1.00	27.79
ATOM	4238	N	ALA	1255	36.303	29.943	76.669	1.00	29.19
ATOM	4239	CA	ALA	1255	37.414	30.877	76.533	1.00	32.50
ATOM	4240	CB	ALA	1255	37.277	32.035	77.527	1.00	28.79
ATOM	4241	C	ALA	1255	38.707	30.107	76.783	1.00	35.77
ATOM	4242	O	ALA	1255	39.685	30.276	76.053	1.00	36.52
ATOM	4243	N	LYS	1256	38.670	29.193	77.754	1.00	39.33
ATOM	4244	CA	LYS	1256	39.839	28.385	78.097	1.00	42.55
ATOM	4245	CB	LYS	1256	39.502	27.377	79.195	1.00	44.68
ATOM	4246	CG	LYS	1256	40.732	26.748	79.817	1.00	48.84
ATOM	4247	CD	LYS	1256	40.453	25.433	80.519	1.00	52.97
ATOM	4248	CE	LYS	1256	41.468	25.179	81.624	1.00	56.19
ATOM	4249	NZ	LYS	1256	42.086	23.817	81.587	1.00	60.90
ATOM	4250	C	LYS	1256	40.321	27.625	76.874	1.00	44.67
ATOM	4251	O	LYS	1256	41.500	27.681	76.500	1.00	45.46
ATOM	4252	N	LYS	1257	39.385	26.932	76.244	1.00	44.88
ATOM	4253	CA	LYS	1257	39.664	26.157	75.059	1.00	43.81
ATOM	4254	CB	LYS	1257	38.390	25.422	74.641	1.00	45.47
ATOM	4255	CG	LYS	1257	38.630	24.014	74.175	1.00	48.45
ATOM	4256	CD	LYS	1257	37.360	23.178	74.208	1.00	51.30
ATOM	4257	CE	LYS	1257	37.632	21.787	73.657	1.00	54.22
ATOM	4258	NZ	LYS	1257	36.598	20.795	74.065	1.00	56.98
ATOM	4259	C	LYS	1257	40.204	27.034	73.926	1.00	42.00
ATOM	4260	O	LYS	1257	41.098	26.622	73.203	1.00	45.13
ATOM	4261	N	LEU	1258	39.679	28.246	73.790	1.00	40.16
ATOM	4262	CA	LEU	1258	40.116	29.171	72.743	1.00	36.94
ATOM	4263	CB	LEU	1258	39.025	30.186	72.442	1.00	34.78
ATOM	4264	CG	LEU	1258	37.988	29.856	71.383	1.00	33.43
ATOM	4265	CD1	LEU	1258	38.106	28.420	70.919	1.00	29.61
ATOM	4266	CD2	LEU	1258	36.607	30.160	71.950	1.00	31.86
ATOM	4267	C	LEU	1258	41.364	29.935	73.114	1.00	37.67
ATOM	4268	O	LEU	1258	41.911	30.680	72.286	1.00	37.51
ATOM	4269	N	GLY	1259	41.783	29.790	74.370	1.00	38.14
ATOM	4270	CA	GLY	1259	42.955	30.498	74.855	1.00	38.19
ATOM	4271	C	GLY	1259	42.620	31.972	74.833	1.00	39.02
ATOM	4272	O	GLY	1259	43.487	32.820	74.602	1.00	41.32
ATOM	4273	N	MET	1260	41.346	32.260	75.091	1.00	37.28
ATOM	4274	CA	MET	1260	40.796	33.604	75.081	1.00	37.82

ATOM	4275	CB	MET	1260	39.423	33.536	74.409	1.00	37.98
ATOM	4276	CG	MET	1260	38.584	34.788	74.487	1.00	42.34
ATOM	4277	SD	MET	1260	37.351	34.743	73.173	1.00	40.13
ATOM	4278	CE	MET	1260	37.626	36.406	72.367	1.00	39.62
ATOM	4279	C	MET	1260	40.682	34.174	76.496	1.00	36.81
ATOM	4280	O	MET	1260	40.165	33.506	77.408	1.00	38.93
ATOM	4281	N	SER	1261	41.181	35.391	76.695	1.00	34.17
ATOM	4282	CA	SER	1261	41.094	36.011	78.011	1.00	31.58
ATOM	4283	CB	SER	1261	42.016	37.223	78.128	1.00	31.13
ATOM	4284	OG	SER	1261	41.871	37.830	79.400	1.00	33.65
ATOM	4285	C	SER	1261	39.656	36.442	78.231	1.00	30.26
ATOM	4286	O	SER	1261	39.002	36.931	77.307	1.00	30.06
ATOM	4287	N	MET	1262	39.175	36.284	79.461	1.00	29.72
ATOM	4288	CA	MET	1262	37.809	36.661	79.803	1.00	29.08
ATOM	4289	CB	MET	1262	37.432	36.154	81.199	1.00	28.90
ATOM	4290	CG	MET	1262	37.192	34.641	81.287	1.00	26.81
ATOM	4291	SD	MET	1262	35.756	34.035	80.339	1.00	29.27
ATOM	4292	CE	MET	1262	34.405	34.444	81.436	1.00	27.16
ATOM	4293	C	MET	1262	37.630	38.170	79.699	1.00	29.50
ATOM	4294	O	MET	1262	36.518	38.681	79.785	1.00	29.39
ATOM	4295	N	ASP	1263	38.736	38.877	79.500	1.00	28.82
ATOM	4296	CA	ASP	1263	38.698	40.325	79.328	1.00	31.39
ATOM	4297	CB	ASP	1263	40.105	40.906	79.478	1.00	34.54
ATOM	4298	CG	ASP	1263	40.531	41.003	80.925	1.00	36.04
ATOM	4299	OD1	ASP	1263	40.754	42.131	81.398	1.00	43.67
ATOM	4300	OD2	ASP	1263	40.613	39.961	81.601	1.00	37.84
ATOM	4301	C	ASP	1263	38.100	40.712	77.972	1.00	29.91
ATOM	4302	O	ASP	1263	37.664	41.844	77.789	1.00	30.10
ATOM	4303	N	ASN	1264	38.096	39.767	77.032	1.00	29.64
ATOM	4304	CA	ASN	1264	37.539	39.985	75.690	1.00	30.14
ATOM	4305	CB	ASN	1264	38.460	39.390	74.623	1.00	32.32
ATOM	4306	CG	ASN	1264	39.787	40.080	74.555	1.00	34.65
ATOM	4307	OD1	ASN	1264	40.802	39.530	74.969	1.00	36.60
ATOM	4308	ND2	ASN	1264	39.791	41.302	74.048	1.00	36.70
ATOM	4309	C	ASN	1264	36.173	39.315	75.534	1.00	27.97
ATOM	4310	O	ASN	1264	35.702	39.110	74.415	1.00	26.73
ATOM	4311	N	VAL	1265	35.547	38.962	76.648	1.00	26.44
ATOM	4312	CA	VAL	1265	34.265	38.283	76.616	1.00	25.04
ATOM	4313	CB	VAL	1265	34.381	36.864	77.249	1.00	24.52
ATOM	4314	CG1	VAL	1265	33.045	36.154	77.216	1.00	25.89
ATOM	4315	CG2	VAL	1265	35.432	36.043	76.518	1.00	22.66
ATOM	4316	C	VAL	1265	33.248	39.097	77.381	1.00	26.01

ATOM	4317	O	VAL	1265	33.507	39.508	78.517	1.00	25.99
ATOM	4318	N	VAL	1266	32.100	39.355	76.765	1.00	23.11
ATOM	4319	CA	VAL	1266	31.073	40.119	77.445	1.00	22.80
ATOM	4320	CB	VAL	1266	30.140	40.836	76.457	1.00	22.51
ATOM	4321	CG1	VAL	1266	28.963	41.491	77.208	1.00	23.31
ATOM	4322	CG2	VAL	1266	30.925	41.882	75.676	1.00	21.03
ATOM	4323	C	VAL	1266	30.296	39.122	78.272	1.00	24.01
ATOM	4324	O	VAL	1266	29.816	38.117	77.746	1.00	25.71
ATOM	4325	N	VAL	1267	30.228	39.364	79.575	1.00	23.07
ATOM	4326	CA	VAL	1267	29.504	38.479	80.476	1.00	23.50
ATOM	4327	CB	VAL	1267	30.475	37.777	81.473	1.00	24.31
ATOM	4328	CG1	VAL	1267	29.704	36.824	82.399	1.00	22.11
ATOM	4329	CG2	VAL	1267	31.562	37.018	80.717	1.00	18.17
ATOM	4330	C	VAL	1267	28.460	39.288	81.249	1.00	21.76
ATOM	4331	O	VAL	1267	28.801	40.263	81.881	1.00	24.70
ATOM	4332	N	THR	1268	27.187	38.903	81.165	1.00	21.76
ATOM	4333	CA	THR	1268	26.118	39.617	81.876	1.00	22.57
ATOM	4334	CB	THR	1268	25.143	40.304	80.894	1.00	22.94
ATOM	4335	OG1	THR	1268	24.408	39.295	80.198	1.00	25.94
ATOM	4336	CG2	THR	1268	25.877	41.155	79.870	1.00	20.58
ATOM	4337	C	THR	1268	25.257	38.665	82.721	1.00	24.12
ATOM	4338	O	THR	1268	24.324	39.089	83.408	1.00	25.27
ATOM	4339	N	LEU	1269	25.571	37.378	82.685	1.00	24.46
ATOM	4340	CA	LEU	1269	24.753	36.402	83.378	1.00	26.40
ATOM	4341	CB	LEU	1269	25.170	34.992	82.988	1.00	28.07
ATOM	4342	CG	LEU	1269	26.138	34.167	83.811	1.00	31.71
ATOM	4343	CD1	LEU	1269	26.285	32.884	83.054	1.00	34.98
ATOM	4344	CD2	LEU	1269	27.468	34.835	84.009	1.00	29.11
ATOM	4345	C	LEU	1269	24.584	36.523	84.875	1.00	27.44
ATOM	4346	O	LEU	1269	23.588	36.075	85.425	1.00	29.42
ATOM	4347	N	ASP	1270	25.538	37.152	85.539	1.00	27.89
ATOM	4348	CA	ASP	1270	25.450	37.316	86.986	1.00	29.75
ATOM	4349	CB	ASP	1270	26.746	37.925	87.530	1.00	30.43
ATOM	4350	CG	ASP	1270	27.129	39.209	86.824	1.00	32.27
ATOM	4351	OD1	ASP	1270	27.431	40.187	87.532	1.00	33.57
ATOM	4352	OD2	ASP	1270	27.127	39.244	85.568	1.00	30.71
ATOM	4353	C	ASP	1270	24.239	38.177	87.360	1.00	30.15
ATOM	4354	O	ASP	1270	23.677	38.027	88.456	1.00	30.63
ATOM	4355	N	ARG	1271	23.826	39.035	86.424	1.00	27.74
ATOM	4356	CA	ARG	1271	22.685	39.927	86.612	1.00	26.49
ATOM	4357	CB	ARG	1271	23.079	41.359	86.255	1.00	26.33
ATOM	4358	CG	ARG	1271	24.057	42.012	87.212	1.00	24.56

ATOM	4359	CD	ARG	1271	24.618	43.318	86.656	1.00	26.98
ATOM	4360	NE	ARG	1271	25.629	43.079	85.620	1.00	30.12
ATOM	4361	CZ	ARG	1271	25.442	43.267	84.314	1.00	25.65
ATOM	4362	NH1	ARG	1271	26.431	43.013	83.476	1.00	25.33
ATOM	4363	NH2	ARG	1271	24.270	43.680	83.842	1.00	24.43
ATOM	4364	C	ARG	1271	21.477	39.538	85.773	1.00	26.95
ATOM	4365	O	ARG	1271	20.352	39.942	86.063	1.00	27.28
ATOM	4366	N	HIS	1272	21.710	38.773	84.716	1.00	27.65
ATOM	4367	CA	HIS	1272	20.619	38.384	83.830	1.00	27.24
ATOM	4368	CB	HIS	1272	21.010	38.624	82.360	1.00	29.74
ATOM	4369	CG	HIS	1272	21.218	40.064	81.989	1.00	32.84
ATOM	4370	CD2	HIS	1272	21.085	41.207	82.703	1.00	34.96
ATOM	4371	ND1	HIS	1272	21.659	40.444	80.737	1.00	33.49
ATOM	4372	CE1	HIS	1272	21.793	41.753	80.698	1.00	33.15
ATOM	4373	NE2	HIS	1272	21.450	42.246	81.871	1.00	34.36
ATOM	4374	C	HIS	1272	20.202	36.926	83.958	1.00	26.93
ATOM	4375	O	HIS	1272	19.025	36.578	83.768	1.00	25.99
ATOM	4376	N	GLY	1273	21.169	36.073	84.259	1.00	25.14
ATOM	4377	CA	GLY	1273	20.890	34.651	84.294	1.00	22.77
ATOM	4378	C	GLY	1273	20.934	34.231	82.825	1.00	23.68
ATOM	4379	O	GLY	1273	21.548	34.909	81.975	1.00	21.05
ATOM	4380	N	ASN	1274	20.261	33.137	82.508	1.00	22.63
ATOM	4381	CA	ASN	1274	20.205	32.630	81.142	1.00	23.41
ATOM	4382	CB	ASN	1274	20.346	31.100	81.173	1.00	24.38
ATOM	4383	CG	ASN	1274	20.306	30.443	79.784	1.00	23.59
ATOM	4384	OD1	ASN	1274	19.872	31.021	78.779	1.00	18.86
ATOM	4385	ND2	ASN	1274	20.754	29.206	79.741	1.00	21.16
ATOM	4386	C	ASN	1274	18.830	33.026	80.612	1.00	22.02
ATOM	4387	O	ASN	1274	17.815	32.598	81.162	1.00	20.30
ATOM	4388	N	THR	1275	18.796	33.903	79.611	1.00	19.30
ATOM	4389	CA	THR	1275	17.517	34.321	79.047	1.00	18.98
ATOM	4390	CB	THR	1275	17.356	35.841	79.044	1.00	17.02
ATOM	4391	OG1	THR	1275	18.458	36.432	78.351	1.00	15.92
ATOM	4392	CG2	THR	1275	17.331	36.368	80.474	1.00	16.36
ATOM	4393	C	THR	1275	17.271	33.758	77.646	1.00	21.30
ATOM	4394	O	THR	1275	16.486	34.316	76.862	1.00	23.00
ATOM	4395	N	SER	1276	17.956	32.655	77.339	1.00	18.24
ATOM	4396	CA	SER	1276	17.791	31.970	76.068	1.00	17.32
ATOM	4397	CB	SER	1276	16.391	31.367	76.057	1.00	15.39
ATOM	4398	OG	SER	1276	16.204	30.503	74.967	1.00	19.71
ATOM	4399	C	SER	1276	18.059	32.880	74.858	1.00	17.33
ATOM	4400	O	SER	1276	19.120	33.513	74.809	1.00	18.28

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ATOM	4401	N	ALA	1277	17.126	32.954	73.896	1.00	16.90
ATOM	4402	CA	ALA	1277	17.294	33.772	72.671	1.00	15.22
ATOM	4403	CB	ALA	1277	16.072	33.626	71.763	1.00	12.81
ATOM	4404	C	ALA	1277	17.575	35.248	72.919	1.00	16.47
ATOM	4405	O	ALA	1277	18.191	35.920	72.093	1.00	15.09
ATOM	4406	N	ALA	1278	17.084	35.763	74.048	1.00	18.38
ATOM	4407	CA	ALA	1278	17.286	37.159	74.430	1.00	16.71
ATOM	4408	CB	ALA	1278	16.274	37.560	75.475	1.00	15.50
ATOM	4409	C	ALA	1278	18.680	37.392	74.977	1.00	16.56
ATOM	4410	O	ALA	1278	19.157	38.524	75.018	1.00	16.07
ATOM	4411	N	SER	1279	19.363	36.314	75.332	1.00	16.66
ATOM	4412	CA	SER	1279	20.691	36.422	75.928	1.00	16.85
ATOM	4413	CB	SER	1279	21.175	35.040	76.333	1.00	16.13
ATOM	4414	OG	SER	1279	22.361	35.135	77.093	1.00	21.35
ATOM	4415	C	SER	1279	21.768	37.171	75.136	1.00	17.04
ATOM	4416	O	SER	1279	22.384	38.098	75.660	1.00	18.57
ATOM	4417	N	VAL	1280	22.017	36.760	73.897	1.00	18.82
ATOM	4418	CA	VAL	1280	23.019	37.413	73.052	1.00	19.07
ATOM	4419	CB	VAL	1280	23.293	36.600	71.731	1.00	17.90
ATOM	4420	CG1	VAL	1280	24.176	37.408	70.799	1.00	14.86
ATOM	4421	CG2	VAL	1280	23.958	35.264	72.046	1.00	17.40
ATOM	4422	C	VAL	1280	22.679	38.888	72.718	1.00	19.08
ATOM	4423	O	VAL	1280	23.516	39.761	72.918	1.00	19.84
ATOM	4424	N	PRO	1281	21.459	39.182	72.205	1.00	18.03
ATOM	4425	CD	PRO	1281	20.380	38.260	71.806	1.00	17.08
ATOM	4426	CA	PRO	1281	21.091	40.563	71.877	1.00	17.53
ATOM	4427	CB	PRO	1281	19.672	40.428	71.318	1.00	19.02
ATOM	4428	CG	PRO	1281	19.159	39.128	71.882	1.00	14.15
ATOM	4429	C	PRO	1281	21.131	41.507	73.076	1.00	20.30
ATOM	4430	O	PRO	1281	21.466	42.678	72.925	1.00	20.69
ATOM	4431	N	CYS	1282	20.763	41.004	74.255	1.00	20.60
ATOM	4432	CA	CYS	1282	20.800	41.783	75.485	1.00	19.53
ATOM	4433	CB	CYS	1282	20.053	41.037	76.595	1.00	18.67
ATOM	4434	SG	CYS	1282	18.241	41.095	76.458	1.00	22.62
ATOM	4435	C	CYS	1282	22.260	42.059	75.890	1.00	19.53
ATOM	4436	O	CYS	1282	22.628	43.201	76.185	1.00	18.96
ATOM	4437	N	ALA	1283	23.099	41.026	75.869	1.00	20.48
ATOM	4438	CA	ALA	1283	24.509	41.194	76.210	1.00	19.41
ATOM	4439	CB	ALA	1283	25.229	39.845	76.250	1.00	16.35
ATOM	4440	C	ALA	1283	25.179	42.121	75.197	1.00	21.48
ATOM	4441	O	ALA	1283	26.057	42.921	75.550	1.00	25.19
ATOM	4442	N	LEU	1284	24.780	42.012	73.933	1.00	22.03

ATOM	4443	CA	LEU	1284	25.331	42.856	72.864	1.00	20.56
ATOM	4444	CB	LEU	1284	24.815	42.384	71.508	1.00	21.59
ATOM	4445	CG	LEU	1284	25.265	43.191	70.299	1.00	23.07
ATOM	4446	CD1	LEU	1284	26.787	43.179	70.197	1.00	22.19
ATOM	4447	CD2	LEU	1284	24.645	42.591	69.041	1.00	21.89
ATOM	4448	C	LEU	1284	24.962	44.321	73.069	1.00	20.61
ATOM	4449	O	LEU	1284	25.817	45.218	72.985	1.00	21.43
ATOM	4450	N	ASP	1285	23.679	44.563	73.325	1.00	20.31
ATOM	4451	CA	ASP	1285	23.178	45.911	73.546	1.00	19.84
ATOM	4452	CB	ASP	1285	21.687	45.893	73.811	1.00	17.66
ATOM	4453	CG	ASP	1285	21.159	47.263	74.115	1.00	22.21
ATOM	4454	OD1	ASP	1285	20.539	47.462	75.181	1.00	27.09
ATOM	4455	OD2	ASP	1285	21.416	48.163	73.303	1.00	22.57
ATOM	4456	C	ASP	1285	23.860	46.598	74.713	1.00	21.48
ATOM	4457	O	ASP	1285	24.154	47.787	74.638	1.00	23.45
ATOM	4458	N	GLU	1286	24.053	45.867	75.807	1.00	20.33
ATOM	4459	CA	GLU	1286	24.696	46.413	76.991	1.00	20.12
ATOM	4460	CB	GLU	1286	24.728	45.387	78.112	1.00	23.91
ATOM	4461	CG	GLU	1286	25.229	45.976	79.420	1.00	29.25
ATOM	4462	CD	GLU	1286	25.205	44.981	80.545	1.00	30.84
ATOM	4463	OE1	GLU	1286	24.104	44.704	81.078	1.00	32.39
ATOM	4464	OE2	GLU	1286	26.292	44.476	80.885	1.00	31.72
ATOM	4465	C	GLU	1286	26.106	46.895	76.698	1.00	21.03
ATOM	4466	O	GLU	1286	26.446	48.035	77.024	1.00	21.08
ATOM	4467	N	ALA	1287	26.917	46.044	76.069	1.00	21.06
ATOM	4468	CA	ALA	1287	28.292	46.404	75.722	1.00	23.01
ATOM	4469	CB	ALA	1287	29.065	45.179	75.276	1.00	23.20
ATOM	4470	C	ALA	1287	28.354	47.520	74.653	1.00	24.81
ATOM	4471	O	ALA	1287	29.288	48.329	74.643	1.00	24.11
ATOM	4472	N	VAL	1288	27.364	47.561	73.760	1.00	25.02
ATOM	4473	CA	VAL	1288	27.319	48.602	72.744	1.00	23.44
ATOM	4474	CB	VAL	1288	26.204	48.349	71.697	1.00	23.61
ATOM	4475	CG1	VAL	1288	25.865	49.653	70.959	1.00	23.80
ATOM	4476	CG2	VAL	1288	26.632	47.281	70.695	1.00	17.36
ATOM	4477	C	VAL	1288	27.010	49.907	73.462	1.00	26.49
ATOM	4478	O	VAL	1288	27.712	50.905	73.297	1.00	28.23
ATOM	4479	N	ARG	1289	25.976	49.884	74.296	1.00	28.36
ATOM	4480	CA	ARG	1289	25.567	51.083	75.018	1.00	29.94
ATOM	4481	CB	ARG	1289	24.173	50.902	75.641	1.00	27.53
ATOM	4482	CG	ARG	1289	23.079	50.878	74.573	1.00	29.11
ATOM	4483	CD	ARG	1289	21.664	50.914	75.124	1.00	29.47
ATOM	4484	NE	ARG	1289	20.687	50.700	74.053	1.00	33.25

ATOM	4485	CZ	ARG	1289	19.957	51.656	73.474	1.00	36.87
ATOM	4486	NH1	ARG	1289	19.107	51.342	72.491	1.00	35.13
ATOM	4487	NH2	ARG	1289	20.024	52.914	73.904	1.00	34.00
ATOM	4488	C	ARG	1289	26.571	51.653	76.030	1.00	33.14
ATOM	4489	O	ARG	1289	26.671	52.874	76.169	1.00	34.75
ATOM	4490	N	ASP	1290	27.346	50.801	76.699	1.00	33.31
ATOM	4491	CA	ASP	1290	28.304	51.319	77.675	1.00	33.59
ATOM	4492	CB	ASP	1290	28.436	50.403	78.911	1.00	32.87
ATOM	4493	CG	ASP	1290	29.082	49.049	78.613	1.00	28.65
ATOM	4494	OD1	ASP	1290	29.674	48.855	77.532	1.00	30.98
ATOM	4495	OD2	ASP	1290	28.984	48.165	79.491	1.00	28.99
ATOM	4496	C	ASP	1290	29.675	51.682	77.115	1.00	34.51
ATOM	4497	O	ASP	1290	30.582	52.030	77.876	1.00	36.93
ATOM	4498	N	GLY	1291	29.844	51.546	75.799	1.00	33.22
ATOM	4499	CA	GLY	1291	31.108	51.912	75.176	1.00	28.47
ATOM	4500	C	GLY	1291	32.159	50.833	75.049	1.00	26.11
ATOM	4501	O	GLY	1291	33.234	51.108	74.549	1.00	26.66
ATOM	4502	N	ARG	1292	31.866	49.611	75.482	1.00	25.55
ATOM	4503	CA	ARG	1292	32.844	48.539	75.365	1.00	24.71
ATOM	4504	CB	ARG	1292	32.393	47.308	76.157	1.00	23.52
ATOM	4505	CG	ARG	1292	32.802	47.356	77.613	1.00	23.01
ATOM	4506	CD	ARG	1292	32.330	46.127	78.367	1.00	24.39
ATOM	4507	NE	ARG	1292	30.880	46.124	78.563	1.00	26.71
ATOM	4508	CZ	ARG	1292	30.201	45.123	79.114	1.00	23.44
ATOM	4509	NH1	ARG	1292	28.895	45.220	79.250	1.00	20.57
ATOM	4510	NH2	ARG	1292	30.830	44.024	79.514	1.00	24.87
ATOM	4511	C	ARG	1292	33.078	48.191	73.892	1.00	25.81
ATOM	4512	O	ARG	1292	34.219	48.008	73.440	1.00	22.33
ATOM	4513	N	ILE	1293	31.984	48.076	73.154	1.00	26.39
ATOM	4514	CA	ILE	1293	32.083	47.771	71.738	1.00	28.82
ATOM	4515	CB	ILE	1293	30.863	46.966	71.243	1.00	27.80
ATOM	4516	CG2	ILE	1293	30.946	46.796	69.726	1.00	26.50
ATOM	4517	CG1	ILE	1293	30.840	45.606	71.966	1.00	22.82
ATOM	4518	CD1	ILE	1293	29.606	44.803	71.761	1.00	22.51
ATOM	4519	C	ILE	1293	32.249	49.082	70.984	1.00	31.55
ATOM	4520	O	ILE	1293	31.351	49.931	70.966	1.00	32.85
ATOM	4521	N	LYS	1294	33.446	49.265	70.444	1.00	32.95
ATOM	4522	CA	LYS	1294	33.807	50.465	69.707	1.00	36.04
ATOM	4523	CB	LYS	1294	35.210	50.921	70.149	1.00	36.19
ATOM	4524	CG	LYS	1294	35.197	51.687	71.449	1.00	40.02
ATOM	4525	CD	LYS	1294	36.461	51.472	72.265	1.00	47.29
ATOM	4526	CE	LYS	1294	36.481	50.088	72.916	1.00	52.02

ATOM	4527	NZ	LYS	1294	37.421	50.005	74.071	1.00	54.91
ATOM	4528	C	LYS	1294	33.773	50.317	68.179	1.00	37.55
ATOM	4529	O	LYS	1294	33.759	49.202	67.637	1.00	37.56
ATOM	4530	N	PRO	1295	33.650	51.446	67.465	1.00	38.17
ATOM	4531	CD	PRO	1295	33.343	52.801	67.942	1.00	37.81
ATOM	4532	CA	PRO	1295	33.626	51.403	66.002	1.00	36.81
ATOM	4533	CB	PRO	1295	33.382	52.863	65.621	1.00	39.04
ATOM	4534	CG	PRO	1295	33.867	53.627	66.818	1.00	40.72
ATOM	4535	C	PRO	1295	34.974	50.891	65.499	1.00	34.71
ATOM	4536	O	PRO	1295	36.030	51.262	66.031	1.00	34.69
ATOM	4537	N	GLY	1296	34.922	50.023	64.499	1.00	30.08
ATOM	4538	CA	GLY	1296	36.114	49.424	63.949	1.00	26.97
ATOM	4539	C	GLY	1296	36.394	48.057	64.542	1.00	26.29
ATOM	4540	O	GLY	1296	37.217	47.315	64.018	1.00	26.25
ATOM	4541	N	GLN	1297	35.703	47.692	65.612	1.00	25.49
ATOM	4542	CA	GLN	1297	35.969	46.410	66.250	1.00	26.25
ATOM	4543	CB	GLN	1297	35.643	46.486	67.740	1.00	27.36
ATOM	4544	CG	GLN	1297	36.455	47.533	68.451	1.00	27.69
ATOM	4545	CD	GLN	1297	36.468	47.355	69.940	1.00	28.47
ATOM	4546	OE1	GLN	1297	35.429	47.272	70.586	1.00	29.34
ATOM	4547	NE2	GLN	1297	37.656	47.310	70.503	1.00	32.99
ATOM	4548	C	GLN	1297	35.298	45.191	65.636	1.00	27.40
ATOM	4549	O	GLN	1297	34.219	45.298	65.059	1.00	25.87
ATOM	4550	N	LEU	1298	35.972	44.042	65.760	1.00	26.70
ATOM	4551	CA	LEU	1298	35.484	42.749	65.269	1.00	24.06
ATOM	4552	CB	LEU	1298	36.661	41.873	64.856	1.00	20.20
ATOM	4553	CG	LEU	1298	36.679	41.174	63.503	1.00	24.25
ATOM	4554	CD1	LEU	1298	37.309	39.805	63.676	1.00	18.87
ATOM	4555	CD2	LEU	1298	35.289	41.084	62.898	1.00	17.88
ATOM	4556	C	LEU	1298	34.766	42.085	66.452	1.00	25.77
ATOM	4557	O	LEU	1298	35.361	41.900	67.525	1.00	23.35
ATOM	4558	N	VAL	1299	33.497	41.729	66.254	1.00	25.00
ATOM	4559	CA	VAL	1299	32.686	41.117	67.305	1.00	22.79
ATOM	4560	CB	VAL	1299	31.524	42.066	67.744	1.00	22.78
ATOM	4561	CG1	VAL	1299	30.779	41.475	68.951	1.00	23.56
ATOM	4562	CG2	VAL	1299	32.075	43.444	68.103	1.00	21.11
ATOM	4563	C	VAL	1299	32.129	39.773	66.827	1.00	21.32
ATOM	4564	O	VAL	1299	31.616	39.660	65.723	1.00	22.04
ATOM	4565	N	LEU	1300	32.235	38.756	67.667	1.00	21.35
ATOM	4566	CA	LEU	1300	31.764	37.426	67.319	1.00	21.59
ATOM	4567	CB	LEU	1300	32.966	36.466	67.322	1.00	20.93
ATOM	4568	CG	LEU	1300	33.066	34.942	67.166	1.00	24.42

ATOM	4569	CD1	LEU	1300	31.766	34.227	66.900	1.00	22.23
ATOM	4570	CD2	LEU	1300	34.101	34.661	66.107	1.00	21.69
ATOM	4571	C	LEU	1300	30.673	36.995	68.289	1.00	20.83
ATOM	4572	O	LEU	1300	30.914	36.883	69.494	1.00	20.14
ATOM	4573	N	LEU	1301	29.463	36.815	67.766	1.00	17.24
ATOM	4574	CA	LEU	1301	28.328	36.383	68.568	1.00	15.76
ATOM	4575	CB	LEU	1301	27.034	36.953	67.979	1.00	18.59
ATOM	4576	CG	LEU	1301	26.935	38.417	67.530	1.00	21.05
ATOM	4577	CD1	LEU	1301	25.467	38.730	67.222	1.00	19.92
ATOM	4578	CD2	LEU	1301	27.455	39.356	68.611	1.00	19.02
ATOM	4579	C	LEU	1301	28.253	34.859	68.482	1.00	16.09
ATOM	4580	O	LEU	1301	28.505	34.300	67.422	1.00	17.64
ATOM	4581	N	GLU	1302	27.928	34.180	69.579	1.00	16.50
ATOM	4582	CA	GLU	1302	27.788	32.708	69.569	1.00	17.21
ATOM	4583	CB	GLU	1302	29.126	31.994	69.798	1.00	19.52
ATOM	4584	CG	GLU	1302	29.765	32.195	71.161	1.00	19.08
ATOM	4585	CD	GLU	1302	30.808	31.133	71.457	1.00	21.59
ATOM	4586	OE1	GLU	1302	31.307	31.070	72.599	1.00	20.81
ATOM	4587	OE2	GLU	1302	31.121	30.337	70.549	1.00	22.35
ATOM	4588	C	GLU	1302	26.761	32.224	70.587	1.00	16.66
ATOM	4589	O	GLU	1302	26.559	32.857	71.609	1.00	19.45
ATOM	4590	N	ALA	1303	26.104	31.111	70.290	1.00	16.91
ATOM	4591	CA	ALA	1303	25.081	30.524	71.152	1.00	14.71
ATOM	4592	CB	ALA	1303	23.732	31.182	70.881	1.00	12.40
ATOM	4593	C	ALA	1303	24.978	29.024	70.934	1.00	15.52
ATOM	4594	O	ALA	1303	25.266	28.527	69.845	1.00	17.90
ATOM	4595	N	PHE	1304	24.551	28.302	71.956	1.00	17.33
ATOM	4596	CA	PHE	1304	24.398	26.850	71.854	1.00	19.02
ATOM	4597	CB	PHE	1304	25.540	26.128	72.595	1.00	20.96
ATOM	4598	CG	PHE	1304	25.418	24.630	72.593	1.00	20.31
ATOM	4599	CD1	PHE	1304	24.686	23.975	73.584	1.00	22.21
ATOM	4600	CD2	PHE	1304	26.001	23.877	71.580	1.00	20.60
ATOM	4601	CE1	PHE	1304	24.530	22.583	73.567	1.00	20.85
ATOM	4602	CE2	PHE	1304	25.856	22.489	71.547	1.00	19.07
ATOM	4603	CZ	PHE	1304	25.116	21.841	72.544	1.00	20.46
ATOM	4604	C	PHE	1304	23.075	26.582	72.543	1.00	19.71
ATOM	4605	O	PHE	1304	22.793	27.195	73.577	1.00	17.92
ATOM	4606	N	GLY	1305	22.254	25.694	71.991	1.00	18.57
ATOM	4607	CA	GLY	1305	20.967	25.445	72.621	1.00	17.43
ATOM	4608	C	GLY	1305	20.311	24.109	72.390	1.00	17.35
ATOM	4609	O	GLY	1305	20.853	23.224	71.715	1.00	17.05
ATOM	4610	N	GLY	1306	19.108	23.993	72.943	1.00	16.97

ATOM	4611	CA	GLY	1306	18.320	22.783	72.845	1.00	18.15
ATOM	4612	C	GLY	1306	18.085	22.306	71.430	1.00	19.39
ATOM	4613	O	GLY	1306	18.080	23.096	70.486	1.00	18.24
ATOM	4614	N	GLY	1307	17.859	21.000	71.307	1.00	22.87
ATOM	4615	CA	GLY	1307	17.640	20.346	70.021	1.00	23.94
ATOM	4616	C	GLY	1307	18.986	19.897	69.527	1.00	23.71
ATOM	4617	O	GLY	1307	19.202	18.747	69.156	1.00	19.34
ATOM	4618	N	PHE	1308	19.898	20.772	69.928	1.00	28.15
ATOM	4619	CA	PHE	1308	21.307	20.847	69.663	1.00	23.79
ATOM	4620	CB	PHE	1308	22.083	19.550	69.824	1.00	26.34
ATOM	4621	CG	PHE	1308	22.542	19.308	71.259	1.00	25.08
ATOM	4622	CD1	PHE	1308	23.839	18.887	71.534	1.00	25.91
ATOM	4623	CD2	PHE	1308	21.641	19.430	72.327	1.00	26.99
ATOM	4624	CE1	PHE	1308	24.239	18.572	72.852	1.00	25.91
ATOM	4625	CE2	PHE	1308	22.025	19.120	73.645	1.00	25.30
ATOM	4626	CZ	PHE	1308	23.334	18.686	73.902	1.00	22.14
ATOM	4627	C	PHE	1308	21.464	21.601	68.371	1.00	22.89
ATOM	4628	O	PHE	1308	21.231	21.096	67.275	1.00	21.28
ATOM	4629	N	THR	1309	21.505	22.908	68.609	1.00	21.25
ATOM	4630	CA	THR	1309	21.671	23.934	67.608	1.00	20.20
ATOM	4631	CB	THR	1309	20.383	24.794	67.441	1.00	18.01
ATOM	4632	OG1	THR	1309	19.917	25.257	68.718	1.00	16.66
ATOM	4633	CG2	THR	1309	19.291	24.005	66.751	1.00	14.73
ATOM	4634	C	THR	1309	22.760	24.842	68.160	1.00	21.35
ATOM	4635	O	THR	1309	22.972	24.915	69.378	1.00	18.72
ATOM	4636	N	TRP	1310	23.522	25.443	67.261	1.00	19.03
ATOM	4637	CA	TRP	1310	24.538	26.384	67.644	1.00	17.30
ATOM	4638	CB	TRP	1310	25.793	25.687	68.217	1.00	17.73
ATOM	4639	CG	TRP	1310	26.508	24.651	67.352	1.00	17.87
ATOM	4640	CD2	TRP	1310	26.185	23.245	67.192	1.00	16.98
ATOM	4641	CE2	TRP	1310	27.191	22.666	66.394	1.00	17.03
ATOM	4642	CE3	TRP	1310	25.133	22.443	67.668	1.00	16.48
ATOM	4643	CD1	TRP	1310	27.673	24.840	66.635	1.00	19.11
ATOM	4644	NE1	TRP	1310	28.086	23.651	66.065	1.00	16.91
ATOM	4645	CZ2	TRP	1310	27.189	21.305	66.048	1.00	15.91
ATOM	4646	CZ3	TRP	1310	25.135	21.087	67.324	1.00	17.84
ATOM	4647	CH2	TRP	1310	26.155	20.536	66.523	1.00	20.01
ATOM	4648	C	TRP	1310	24.810	27.239	66.398	1.00	18.18
ATOM	4649	O	TRP	1310	24.564	26.802	65.273	1.00	17.43
ATOM	4650	N	GLY	1311	25.208	28.489	66.614	1.00	18.73
ATOM	4651	CA	GLY	1311	25.481	29.392	65.517	1.00	19.10
ATOM	4652	C	GLY	1311	26.374	30.548	65.931	1.00	20.09

ATOM	4653	O	GLY	1311	26.635	30.763	67.111	1.00	22.74
ATOM	4654	N	SER	1312	26.843	31.304	64.954	1.00	19.28
ATOM	4655	CA	SER	1312	27.707	32.434	65.217	1.00	19.43
ATOM	4656	CB	SER	1312	29.173	31.994	65.146	1.00	19.72
ATOM	4657	OG	SER	1312	29.525	31.577	63.831	1.00	20.21
ATOM	4658	C	SER	1312	27.469	33.514	64.174	1.00	19.94
ATOM	4659	O	SER	1312	26.863	33.275	63.132	1.00	19.60
ATOM	4660	N	ALA	1313	27.982	34.702	64.449	1.00	20.65
ATOM	4661	CA	ALA	1313	27.886	35.829	63.546	1.00	19.57
ATOM	4662	CB	ALA	1313	26.650	36.651	63.854	1.00	22.15
ATOM	4663	C	ALA	1313	29.148	36.640	63.801	1.00	20.41
ATOM	4664	O	ALA	1313	29.494	36.895	64.950	1.00	18.61
ATOM	4665	N	LEU	1314	29.888	36.928	62.740	1.00	19.00
ATOM	4666	CA	LEU	1314	31.095	37.734	62.844	1.00	19.69
ATOM	4667	CB	LEU	1314	32.206	37.134	61.983	1.00	19.06
ATOM	4668	CG	LEU	1314	33.559	37.796	62.194	1.00	17.79
ATOM	4669	CD1	LEU	1314	33.954	37.704	63.659	1.00	15.24
ATOM	4670	CD2	LEU	1314	34.585	37.144	61.316	1.00	16.96
ATOM	4671	C	LEU	1314	30.677	39.123	62.337	1.00	20.59
ATOM	4672	O	LEU	1314	30.194	39.264	61.202	1.00	20.90
ATOM	4673	N	VAL	1315	30.831	40.135	63.183	1.00	19.86
ATOM	4674	CA	VAL	1315	30.418	41.486	62.847	1.00	19.27
ATOM	4675	CB	VAL	1315	29.232	41.961	63.755	1.00	19.43
ATOM	4676	CG1	VAL	1315	28.668	43.299	63.269	1.00	16.08
ATOM	4677	CG2	VAL	1315	28.133	40.901	63.826	1.00	17.00
ATOM	4678	C	VAL	1315	31.530	42.483	63.042	1.00	20.03
ATOM	4679	O	VAL	1315	32.209	42.472	64.045	1.00	21.54
ATOM	4680	N	ARG	1316	31.734	43.339	62.063	1.00	23.92
ATOM	4681	CA	ARG	1316	32.721	44.395	62.192	1.00	27.57
ATOM	4682	CB	ARG	1316	33.529	44.572	60.905	1.00	26.35
ATOM	4683	CG	ARG	1316	34.618	45.632	61.018	1.00	26.23
ATOM	4684	CD	ARG	1316	35.976	44.997	60.826	1.00	27.01
ATOM	4685	NE	ARG	1316	36.810	45.102	62.015	1.00	30.88
ATOM	4686	CZ	ARG	1316	37.877	44.351	62.241	1.00	27.88
ATOM	4687	NH1	ARG	1316	38.583	44.525	63.347	1.00	35.13
ATOM	4688	NH2	ARG	1316	38.236	43.422	61.367	1.00	29.00
ATOM	4689	C	ARG	1316	31.911	45.659	62.450	1.00	29.34
ATOM	4690	O	ARG	1316	31.025	46.009	61.658	1.00	31.05
ATOM	4691	N	PHE	1317	32.123	46.266	63.611	1.00	29.47
ATOM	4692	CA	PHE	1317	31.431	47.496	63.963	1.00	29.28
ATOM	4693	CB	PHE	1317	31.156	47.551	65.464	1.00	26.45
ATOM	4694	CG	PHE	1317	29.969	46.752	65.873	1.00	27.26

ATOM	4695	CD1	PHE	1317	30.118	45.455	66.368	1.00	24.59
ATOM	4696	CD2	PHE	1317	28.691	47.271	65.715	1.00	25.69
ATOM	4697	CE1	PHE	1317	29.009	44.687	66.693	1.00	24.78
ATOM	4698	CE2	PHE	1317	27.563	46.510	66.037	1.00	25.53
ATOM	4699	CZ	PHE	1317	27.716	45.214	66.526	1.00	24.94
ATOM	4700	C	PHE	1317	32.269	48.695	63.518	1.00	30.64
ATOM	4701	O	PHE	1317	31.845	49.859	63.732	1.00	32.43
ATOM	4702	OT	PHE	1317	33.363	48.448	62.958	1.00	31.50
ATOM	4703	OH2	WAT	1401	5.315	34.739	76.121	1.00	13.82
ATOM	4704	OH2	WAT	1402	15.951	23.131	68.408	1.00	11.16
ATOM	4705	OH2	WAT	1403	2.455	34.205	70.275	1.00	12.28
ATOM	4706	OH2	WAT	1404	0.297	25.424	52.766	1.00	13.37
ATOM	4707	OH2	WAT	1405	15.958	31.053	42.989	1.00	13.22
ATOM	4708	OH2	WAT	1406	3.917	35.971	73.141	1.00	13.46
ATOM	4709	OH2	WAT	1407	4.622	27.720	59.933	1.00	13.74
ATOM	4710	OH2	WAT	1408	4.301	34.495	61.399	1.00	14.13
ATOM	4711	OH2	WAT	1409	5.398	11.605	48.058	1.00	14.80
ATOM	4712	OH2	WAT	1410	13.704	33.798	43.879	1.00	16.34
ATOM	4713	OH2	WAT	1411	-3.006	19.240	50.169	1.00	17.29
ATOM	4714	OH2	WAT	1412	-5.182	29.578	49.015	1.00	13.34
ATOM	4715	OH2	WAT	1413	8.330	14.068	69.537	1.00	14.90
ATOM	4716	OH2	WAT	1414	2.419	26.001	60.350	1.00	13.86
ATOM	4717	OH2	WAT	1415	7.212	16.915	66.508	1.00	14.89
ATOM	4718	OH2	WAT	1416	-2.439	20.281	59.808	1.00	13.86
ATOM	4719	OH2	WAT	1417	14.296	33.181	78.851	1.00	16.50
ATOM	4720	OH2	WAT	1418	-6.244	30.660	46.648	1.00	15.51
ATOM	4721	OH2	WAT	1419	-0.518	10.092	35.513	1.00	17.57
ATOM	4722	OH2	WAT	1420	2.525	31.078	63.242	1.00	16.77
ATOM	4723	OH2	WAT	1421	-0.374	41.318	37.929	1.00	14.90
ATOM	4724	OH2	WAT	1422	16.066	24.264	65.845	1.00	18.22
ATOM	4725	OH2	WAT	1423	-3.883	7.427	61.300	1.00	17.06
ATOM	4726	OH2	WAT	1424	12.532	36.654	45.328	1.00	15.97
ATOM	4727	OH2	WAT	1425	6.298	19.582	47.664	1.00	17.77
ATOM	4728	OH2	WAT	1426	3.086	16.913	66.438	1.00	17.61
ATOM	4729	OH2	WAT	1427	-7.388	19.685	40.814	1.00	18.31
ATOM	4730	OH2	WAT	1428	9.137	19.205	68.316	1.00	17.02
ATOM	4731	OH2	WAT	1429	25.255	28.406	57.899	1.00	18.07
ATOM	4732	OH2	WAT	1430	2.036	27.340	53.184	1.00	17.72
ATOM	4733	OH2	WAT	1431	-0.014	11.872	42.184	1.00	18.50
ATOM	4734	OH2	WAT	1432	7.436	26.730	64.657	1.00	17.72
ATOM	4735	OH2	WAT	1433	8.292	12.873	66.920	1.00	16.98
ATOM	4736	OH2	WAT	1434	25.555	28.813	74.676	1.00	18.66

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ATOM   4737  OH2 WAT  1435      14.573  30.201  68.805  1.00 17.53
ATOM   4738  OH2 WAT  1436      -3.338  26.534  79.010  1.00 18.42
ATOM   4739  OH2 WAT  1437      13.941  25.350  69.119  1.00 19.31
ATOM   4740  OH2 WAT  1438       5.568  30.533  77.471  1.00 18.00
ATOM   4741  OH2 WAT  1439      -0.382  41.919  50.274  1.00 19.65
ATOM   4742  OH2 WAT  1440       9.327  28.744  65.023  1.00 21.90
ATOM   4743  OH2 WAT  1441      -4.622  20.435  52.388  1.00 16.77
ATOM   4744  OH2 WAT  1442       7.236  30.030  70.795  1.00 17.53
ATOM   4745  OH2 WAT  1443      13.119  34.618  47.314  1.00 18.11
ATOM   4746  OH2 WAT  1444      14.334  30.516  71.582  1.00 17.59
ATOM   4747  OH2 WAT  1445      27.437  34.146  55.774  1.00 18.53
ATOM   4748  OH2 WAT  1446       1.573  39.415  74.019  1.00 20.67
ATOM   4749  OH2 WAT  1447       1.548  33.959  62.429  1.00 17.04
ATOM   4750  OH2 WAT  1448     -11.189  24.324  67.307  1.00 19.95
ATOM   4751  OH2 WAT  1449       6.936  31.115  68.037  1.00 19.58
ATOM   4752  OH2 WAT  1450       5.374  24.002  66.620  1.00 21.83
ATOM   4753  OH2 WAT  1451       1.606  24.173  68.766  1.00 22.92
ATOM   4754  OH2 WAT  1452       9.175  39.009  50.643  1.00 18.82
ATOM   4755  OH2 WAT  1453      -5.964  19.963  38.349  1.00 20.15
ATOM   4756  OH2 WAT  1454       0.038  14.701  48.663  1.00 24.07
ATOM   4757  OH2 WAT  1455       4.018   9.660  60.505  1.00 21.11
ATOM   4758  OH2 WAT  1456      21.048  34.171  72.785  1.00 21.08
ATOM   4759  OH2 WAT  1457      30.744  30.111  75.063  1.00 20.59
ATOM   4760  OH2 WAT  1458      12.183  24.479  40.021  1.00 20.78
ATOM   4761  OH2 WAT  1459       6.921  41.154  47.780  1.00 20.85
ATOM   4762  OH2 WAT  1460       9.189  29.903  67.511  1.00 18.33
ATOM   4763  OH2 WAT  1461      -7.042  30.462  75.519  1.00 20.98
ATOM   4764  OH2 WAT  1462       0.569  19.330  68.530  1.00 23.40
ATOM   4765  OH2 WAT  1463      21.021  33.042  70.433  1.00 19.60
ATOM   4766  OH2 WAT  1464      -5.328  15.290  55.724  1.00 20.90
ATOM   4767  OH2 WAT  1465       5.419  10.009  40.091  1.00 21.16
ATOM   4768  OH2 WAT  1466     -11.082  17.322  61.382  1.00 17.73
ATOM   4769  OH2 WAT  1467      -5.497  17.452  42.362  1.00 21.65
ATOM   4770  OH2 WAT  1468      -0.223  42.251  31.400  1.00 19.03
ATOM   4771  OH2 WAT  1469      -5.151  30.597  51.797  1.00 20.72
ATOM   4772  OH2 WAT  1470       3.424  27.052  76.467  1.00 24.61
ATOM   4773  OH2 WAT  1471       7.392  31.019  48.787  1.00 24.84
ATOM   4774  OH2 WAT  1472       8.136  39.143  30.329  1.00 26.29
ATOM   4775  OH2 WAT  1473     -18.826  13.558  50.851  1.00 22.14
ATOM   4776  OH2 WAT  1474      -0.389  45.395  62.124  1.00 21.84
ATOM   4777  OH2 WAT  1475       2.227  21.656  69.575  1.00 21.63
ATOM   4778  OH2 WAT  1476      26.143  40.932  55.638  1.00 19.95
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ATOM	4779	OH2 WAT	1477	27.355	37.825	56.100	1.00	22.90
ATOM	4780	OH2 WAT	1478	5.600	15.851	36.496	1.00	22.32
ATOM	4781	OH2 WAT	1479	29.417	35.684	54.309	1.00	21.36
ATOM	4782	OH2 WAT	1480	7.044	48.522	57.941	1.00	26.15
ATOM	4783	OH2 WAT	1481	-2.839	12.352	41.507	1.00	22.46
ATOM	4784	OH2 WAT	1482	-4.632	13.989	38.171	1.00	25.06
ATOM	4785	OH2 WAT	1483	-1.787	13.413	47.282	1.00	23.61
ATOM	4786	OH2 WAT	1484	-0.102	37.172	73.922	1.00	23.59
ATOM	4787	OH2 WAT	1485	-4.596	35.709	63.187	1.00	22.18
ATOM	4788	OH2 WAT	1486	18.824	12.474	72.553	1.00	23.84
ATOM	4789	OH2 WAT	1487	22.193	38.869	78.621	1.00	22.48
ATOM	4790	OH2 WAT	1488	-1.980	39.478	34.671	1.00	23.28
ATOM	4791	OH2 WAT	1489	-0.261	41.299	75.565	1.00	23.29
ATOM	4792	OH2 WAT	1490	9.872	43.471	52.621	1.00	26.71
ATOM	4793	OH2 WAT	1491	0.134	24.673	71.047	1.00	28.11
ATOM	4794	OH2 WAT	1492	0.725	18.035	78.383	1.00	19.49
ATOM	4795	OH2 WAT	1493	6.919	43.317	78.419	1.00	23.48
ATOM	4796	OH2 WAT	1494	5.335	45.232	52.517	1.00	25.13
ATOM	4797	OH2 WAT	1495	24.043	27.541	46.434	1.00	22.71
ATOM	4798	OH2 WAT	1496	7.768	11.215	39.375	1.00	23.37
ATOM	4799	OH2 WAT	1497	2.300	24.300	74.609	1.00	27.22
ATOM	4800	OH2 WAT	1498	12.152	22.897	84.975	1.00	23.26
ATOM	4801	OH2 WAT	1499	1.077	16.445	68.501	1.00	26.34
ATOM	4802	OH2 WAT	1500	0.662	21.793	71.679	1.00	23.90
ATOM	4803	OH2 WAT	1501	-1.160	6.552	55.438	1.00	23.97
ATOM	4804	OH2 WAT	1502	-14.650	25.461	41.625	1.00	23.44
ATOM	4805	OH2 WAT	1503	7.515	32.928	86.072	1.00	23.63
ATOM	4806	OH2 WAT	1504	2.462	41.882	31.966	1.00	25.29
ATOM	4807	OH2 WAT	1505	-9.240	21.632	39.631	1.00	22.39
ATOM	4808	OH2 WAT	1506	27.453	46.288	61.959	1.00	22.05
ATOM	4809	OH2 WAT	1507	-7.486	39.855	41.330	1.00	25.82
ATOM	4810	OH2 WAT	1508	24.403	34.996	56.680	1.00	26.06
ATOM	4811	OH2 WAT	1509	-15.732	30.175	61.852	1.00	24.79
ATOM	4812	OH2 WAT	1510	-3.597	29.190	59.997	1.00	27.19
ATOM	4813	OH2 WAT	1511	24.845	30.778	56.956	1.00	28.45
ATOM	4814	OH2 WAT	1512	21.397	14.086	64.079	1.00	26.69
ATOM	4815	OH2 WAT	1513	9.385	16.100	80.195	1.00	27.45
ATOM	4816	OH2 WAT	1514	20.289	36.490	97.278	1.00	23.60
ATOM	4817	OH2 WAT	1515	-5.649	9.562	66.618	1.00	26.59
ATOM	4818	OH2 WAT	1516	4.761	9.005	47.052	1.00	25.53
ATOM	4819	OH2 WAT	1517	10.505	40.388	43.326	1.00	25.76
ATOM	4820	OH2 WAT	1518	20.642	24.380	35.868	1.00	24.19

ATOM	4821	OH2	WAT	1519	-1.434	6.688	60.314	1.00	23.07
ATOM	4822	OH2	WAT	1520	11.209	40.537	50.668	1.00	27.55
ATOM	4823	OH2	WAT	1521	4.005	33.160	78.206	1.00	26.32
ATOM	4824	OH2	WAT	1522	24.175	21.437	50.722	1.00	30.19
ATOM	4825	OH2	WAT	1523	21.277	43.558	70.167	1.00	27.98
ATOM	4826	OH2	WAT	1524	18.123	48.953	75.384	1.00	24.69
ATOM	4827	OH2	WAT	1525	-6.258	36.546	30.783	1.00	28.12
ATOM	4828	OH2	WAT	1526	23.704	9.894	52.906	1.00	25.87
ATOM	4829	OH2	WAT	1527	-13.216	29.801	39.661	1.00	25.00
ATOM	4830	OH2	WAT	1528	-7.986	23.228	75.693	1.00	25.14
ATOM	4831	OH2	WAT	1529	16.813	16.781	79.223	1.00	23.48
ATOM	4832	OH2	WAT	1530	-4.058	13.922	65.118	1.00	26.75
ATOM	4833	OH2	WAT	1531	10.591	39.840	31.086	1.00	32.92
ATOM	4834	OH2	WAT	1532	-17.348	12.157	53.156	1.00	27.86
ATOM	4835	OH2	WAT	1533	5.142	25.019	75.200	1.00	34.14
ATOM	4836	OH2	WAT	1534	34.337	39.058	81.353	1.00	25.55
ATOM	4837	OH2	WAT	1535	-15.249	16.699	45.390	1.00	29.79
ATOM	4838	OH2	WAT	1536	2.728	42.638	34.475	1.00	28.74
ATOM	4839	OH2	WAT	1537	27.680	30.373	75.137	1.00	31.44
ATOM	4840	OH2	WAT	1538	24.130	34.594	63.098	1.00	24.99
ATOM	4841	OH2	WAT	1539	5.614	26.005	82.988	1.00	30.79
ATOM	4842	OH2	WAT	1540	-4.652	12.111	48.909	1.00	30.11
ATOM	4843	OH2	WAT	1541	2.159	31.084	78.445	1.00	32.22
ATOM	4844	OH2	WAT	1542	-15.700	31.765	45.476	1.00	29.48
ATOM	4845	OH2	WAT	1543	5.627	6.923	45.556	1.00	25.71
ATOM	4846	OH2	WAT	1544	-6.111	19.978	71.922	1.00	29.01
ATOM	4847	OH2	WAT	1545	-1.104	43.416	33.696	1.00	28.57
ATOM	4848	OH2	WAT	1546	-8.871	15.706	65.737	1.00	31.78
ATOM	4849	OH2	WAT	1547	5.201	44.399	48.766	1.00	35.02
ATOM	4850	OH2	WAT	1548	-0.922	44.298	38.494	1.00	30.40
ATOM	4851	OH2	WAT	1549	7.768	34.944	84.398	1.00	30.69
ATOM	4852	OH2	WAT	1550	8.970	18.085	81.813	1.00	30.54
ATOM	4853	OH2	WAT	1551	27.578	17.055	66.547	1.00	30.78
ATOM	4854	OH2	WAT	1552	-13.535	6.951	58.907	1.00	34.35
ATOM	4855	OH2	WAT	1553	6.685	27.216	73.782	1.00	29.27
ATOM	4856	OH2	WAT	1554	-12.227	29.757	37.062	1.00	33.10
ATOM	4857	OH2	WAT	1555	-0.677	25.251	30.604	1.00	29.83
ATOM	4858	OH2	WAT	1556	25.214	30.551	100.906	1.00	34.44
ATOM	4859	OH2	WAT	1557	7.427	51.993	69.221	1.00	36.23
ATOM	4860	OH2	WAT	1558	20.918	35.867	79.358	1.00	30.00
ATOM	4861	OH2	WAT	1559	10.023	39.096	45.712	1.00	34.79
ATOM	4862	OH2	WAT	1560	-9.200	28.295	72.461	1.00	27.84

ATOM	4863	OH2 WAT	1561	16.857	38.250	83.245	1.00	33.36
ATOM	4864	OH2 WAT	1562	21.779	36.212	50.855	1.00	31.81
ATOM	4865	OH2 WAT	1563	-18.567	9.881	66.770	1.00	25.08
ATOM	4866	OH2 WAT	1564	-22.607	21.436	66.242	1.00	27.98
ATOM	4867	OH2 WAT	1565	22.509	11.255	64.047	1.00	29.66
ATOM	4868	OH2 WAT	1566	6.066	14.783	34.175	1.00	34.17
ATOM	4869	OH2 WAT	1567	8.150	24.331	66.134	1.00	25.23
ATOM	4870	OH2 WAT	1568	12.929	46.881	51.672	1.00	31.38
ATOM	4871	OH2 WAT	1569	8.075	44.047	84.562	1.00	25.59
ATOM	4872	OH2 WAT	1570	13.125	38.386	48.095	1.00	31.52
ATOM	4873	OH2 WAT	1571	-7.090	32.564	71.346	1.00	29.83
ATOM	4874	OH2 WAT	1572	35.709	27.678	58.395	1.00	28.24
ATOM	4875	OH2 WAT	1573	18.269	26.013	74.996	1.00	30.78
ATOM	4876	OH2 WAT	1574	46.291	35.317	66.074	1.00	34.24
ATOM	4877	OH2 WAT	1575	20.978	44.294	78.480	1.00	29.64
ATOM	4878	OH2 WAT	1576	5.777	46.062	78.032	1.00	31.34
ATOM	4879	OH2 WAT	1577	17.048	19.612	86.043	1.00	35.69
ATOM	4880	OH2 WAT	1578	-1.339	47.860	63.042	1.00	35.42
ATOM	4881	OH2 WAT	1579	8.947	27.064	29.078	1.00	30.93
ATOM	4882	OH2 WAT	1580	-18.653	22.849	47.270	1.00	30.44
ATOM	4883	OH2 WAT	1581	1.657	16.633	71.446	1.00	31.97
ATOM	4884	OH2 WAT	1582	5.116	28.934	75.173	1.00	28.58
ATOM	4885	OH2 WAT	1583	8.243	18.216	36.583	1.00	37.11
ATOM	4886	OH2 WAT	1584	1.073	43.947	51.776	1.00	39.11
ATOM	4887	OH2 WAT	1585	17.119	19.525	90.100	1.00	30.65
ATOM	4888	OH2 WAT	1586	0.386	40.932	35.224	1.00	29.62
ATOM	4889	OH2 WAT	1587	-15.265	33.177	42.729	1.00	32.44
ATOM	4890	OH2 WAT	1588	11.011	16.060	78.043	1.00	33.11
ATOM	4891	OH2 WAT	1589	14.116	31.413	87.652	1.00	31.60
ATOM	4892	OH2 WAT	1590	9.589	47.543	83.384	1.00	35.30
ATOM	4893	OH2 WAT	1591	14.184	13.390	77.383	1.00	30.83
ATOM	4894	OH2 WAT	1592	-1.237	4.310	61.083	1.00	34.85
ATOM	4895	OH2 WAT	1593	25.209	24.154	55.818	1.00	40.42
ATOM	4896	OH2 WAT	1594	5.092	32.742	85.307	1.00	34.44
ATOM	4897	OH2 WAT	1595	11.013	37.456	49.743	1.00	31.05
ATOM	4898	OH2 WAT	1596	6.727	24.455	69.327	1.00	28.55
ATOM	4899	OH2 WAT	1597	-2.992	44.444	55.600	1.00	31.08
ATOM	4900	OH2 WAT	1598	-0.607	44.652	54.386	1.00	31.62
ATOM	4901	OH2 WAT	1599	31.861	41.101	80.830	1.00	34.91
ATOM	4902	OH2 WAT	1600	-6.985	45.435	61.389	1.00	32.06
ATOM	4903	OH2 WAT	1601	26.929	22.125	57.339	1.00	33.50
ATOM	4904	OH2 WAT	1602	4.928	29.639	66.914	1.00	36.42

ATOM	4905	OH2	WAT	1603	-1.067	39.010	65.679	1.00	30.55
ATOM	4906	OH2	WAT	1604	-15.286	19.570	46.470	1.00	29.40
ATOM	4907	OH2	WAT	1605	-13.379	40.131	50.471	1.00	33.41
ATOM	4908	OH2	WAT	1606	15.234	15.979	39.934	1.00	40.78
ATOM	4909	OH2	WAT	1607	9.772	33.284	33.038	1.00	34.51
ATOM	4910	OH2	WAT	1608	-1.539	45.021	68.942	1.00	39.37
ATOM	4911	OH2	WAT	1609	-10.579	27.896	56.159	1.00	33.89
ATOM	4912	OH2	WAT	1610	9.562	14.824	75.881	1.00	34.75
ATOM	4913	OH2	WAT	1611	26.540	23.181	50.633	1.00	35.94
ATOM	4914	OH2	WAT	1612	1.195	36.536	28.146	1.00	37.66
ATOM	4915	OH2	WAT	1613	-18.012	33.827	54.307	1.00	34.43
ATOM	4916	OH2	WAT	1614	-15.845	10.143	52.029	1.00	31.15
ATOM	4917	OH2	WAT	1615	30.794	29.353	88.125	1.00	34.69
ATOM	4918	OH2	WAT	1616	6.733	12.492	70.885	1.00	36.39
ATOM	4919	OH2	WAT	1617	21.802	36.923	94.789	1.00	32.49
ATOM	4920	OH2	WAT	1618	3.785	25.749	69.340	1.00	40.18
ATOM	4921	OH2	WAT	1619	28.714	41.308	84.597	1.00	33.74
ATOM	4922	OH2	WAT	1620	-14.858	28.646	64.172	1.00	33.63
ATOM	4923	OH2	WAT	1621	31.530	38.567	53.682	1.00	35.34
ATOM	4924	OH2	WAT	1622	26.423	24.195	53.149	1.00	40.96
ATOM	4925	OH2	WAT	1623	0.123	30.828	76.276	1.00	33.92
ATOM	4926	OH2	WAT	1624	13.081	15.459	73.465	1.00	39.39
ATOM	4927	OH2	WAT	1625	14.641	45.659	87.842	1.00	34.79
ATOM	4928	OH2	WAT	1626	-13.055	10.822	62.673	1.00	29.66
ATOM	4929	OH2	WAT	1627	-1.819	36.412	76.018	1.00	30.25
ATOM	4930	OH2	WAT	1628	32.695	34.369	54.477	1.00	39.36
ATOM	4931	OH2	WAT	1629	-3.612	29.524	76.502	1.00	32.86
ATOM	4932	OH2	WAT	1630	-2.452	38.410	72.608	1.00	38.55
ATOM	4933	OH2	WAT	1631	15.698	18.384	83.967	1.00	35.24
ATOM	4934	OH2	WAT	1632	-0.419	42.286	69.786	1.00	36.82
ATOM	4935	OH2	WAT	1633	24.038	17.462	58.210	1.00	31.81
ATOM	4936	OH2	WAT	1634	-13.316	26.559	35.692	1.00	41.53
ATOM	4937	OH2	WAT	1635	9.496	31.285	87.332	1.00	37.79
ATOM	4938	OH2	WAT	1636	2.581	14.055	85.299	1.00	37.17
ATOM	4939	OH2	WAT	1637	-10.219	33.473	66.504	1.00	32.79
ATOM	4940	OH2	WAT	1638	22.046	54.236	76.003	1.00	37.04
ATOM	4941	OH2	WAT	1639	24.997	49.509	79.035	1.00	36.09
ATOM	4942	OH2	WAT	1640	12.260	13.390	75.224	1.00	34.96
ATOM	4943	OH2	WAT	1641	4.947	46.544	57.507	1.00	32.31
ATOM	4944	OH2	WAT	1642	7.045	40.907	50.447	1.00	36.64
ATOM	4945	OH2	WAT	1643	8.015	27.632	69.102	1.00	36.37
ATOM	4946	OH2	WAT	1644	-7.168	31.370	53.744	1.00	39.56

ATOM	4947	OH2 WAT	1645	8.463	10.248	67.698	1.00 34.23
ATOM	4948	OH2 WAT	1646	-9.799	17.878	41.560	1.00 43.63
ATOM	4949	OH2 WAT	1647	-15.073	37.816	63.552	1.00 39.58
ATOM	4950	OH2 WAT	1648	-0.562	33.693	80.447	1.00 41.54
ATOM	4951	OH2 WAT	1649	-10.373	15.603	68.205	1.00 41.46
ATOM	4952	OH2 WAT	1650	12.834	14.813	70.871	1.00 34.59
ATOM	4953	OH2 WAT	1651	10.590	19.546	36.468	1.00 41.22
ATOM	4954	OH2 WAT	1652	12.167	31.302	33.528	1.00 38.40
ATOM	4955	OH2 WAT	1653	-0.308	21.208	31.069	1.00 41.85
ATOM	4956	OH2 WAT	1654	19.883	9.312	51.131	1.00 42.79
ATOM	4957	OH2 WAT	1655	35.501	33.323	84.682	1.00 40.20
ATOM	4958	OH2 WAT	1656	2.905	50.074	58.027	1.00 37.76
ATOM	4959	OH2 WAT	1657	-9.036	16.466	44.001	1.00 30.34
ATOM	4960	OH2 WAT	1658	4.972	10.638	70.098	1.00 34.48
ATOM	4961	OH2 WAT	1659	-13.605	38.249	32.705	1.00 36.04
ATOM	4962	OH2 WAT	1660	6.189	40.951	88.312	1.00 35.35
ATOM	4963	OH2 WAT	1661	-26.448	25.196	59.925	1.00 43.54
ATOM	4964	OH2 WAT	1662	-2.953	37.512	69.641	1.00 31.43
ATOM	4965	OH2 WAT	1663	14.622	6.795	61.725	1.00 37.01
ATOM	4966	OH2 WAT	1664	-1.398	23.432	32.692	1.00 36.11
ATOM	4967	OH2 WAT	1665	37.894	42.149	58.453	1.00 36.18
ATOM	4968	OH2 WAT	1666	30.329	22.425	64.372	1.00 38.53
ATOM	4969	OH2 WAT	1667	25.597	27.402	55.358	1.00 35.63
ATOM	4970	OH2 WAT	1668	2.679	11.859	69.725	1.00 37.83
ATOM	4971	OH2 WAT	1669	6.507	15.329	79.519	1.00 35.97
ATOM	4972	OH2 WAT	1670	31.231	31.652	55.427	1.00 35.62
ATOM	4973	OH2 WAT	1671	13.241	21.571	38.386	1.00 37.83
ATOM	4974	OH2 WAT	1672	15.112	8.894	50.639	1.00 35.35
ATOM	4975	OH2 WAT	1673	19.746	35.067	41.693	1.00 44.78
ATOM	4976	OH2 WAT	1674	11.768	37.778	37.242	1.00 48.72
ATOM	4977	OH2 WAT	1675	38.280	46.934	73.887	1.00 41.84
ATOM	4978	OH2 WAT	1676	-20.129	27.116	61.209	1.00 36.19
ATOM	4979	OH2 WAT	1677	40.797	30.415	63.540	1.00 42.24
ATOM	4980	OH2 WAT	1678	-3.879	3.965	61.405	1.00 42.76
ATOM	4981	OH2 WAT	1679	35.564	37.845	54.662	1.00 38.01
ATOM	4982	OH2 WAT	1680	-9.412	41.415	42.263	1.00 34.42
ATOM	4983	OH2 WAT	1681	15.728	14.137	68.497	1.00 44.65
ATOM	4984	OH2 WAT	1682	-6.787	13.932	66.307	1.00 41.40
ATOM	4985	OH2 WAT	1683	9.271	55.028	63.937	1.00 35.64
ATOM	4986	OH2 WAT	1684	2.633	43.503	86.988	1.00 46.65
ATOM	4987	OH2 WAT	1685	15.992	32.935	101.983	1.00 45.20
ATOM	4988	OH2 WAT	1686	-17.211	36.466	54.585	1.00 36.56

ATOM	4989	OH2	WAT	1687	8.745	34.326	30.526	1.00	41.89
ATOM	4990	OH2	WAT	1688	19.207	38.989	78.892	1.00	40.39
ATOM	4991	OH2	WAT	1689	15.166	45.738	84.448	1.00	43.93
ATOM	4992	OH2	WAT	1690	10.625	23.067	96.068	1.00	35.94
ATOM	4993	OH2	WAT	1691	27.885	35.035	97.219	1.00	35.80
ATOM	4994	OH2	WAT	1692	43.592	28.216	78.241	1.00	42.03
ATOM	4995	OH2	WAT	1693	-23.022	9.761	60.166	1.00	39.54
ATOM	4996	OH2	WAT	1694	20.396	19.074	40.671	1.00	41.35
ATOM	4997	OH2	WAT	1695	-6.715	19.839	35.718	1.00	35.37
ATOM	4998	OH2	WAT	1696	27.904	32.186	49.508	1.00	50.21
ATOM	4999	OH2	WAT	1697	-1.524	13.990	34.490	1.00	40.49
ATOM	5000	OH2	WAT	1698	29.340	38.196	90.697	1.00	42.12
ATOM	5001	OH2	WAT	1699	21.277	28.180	103.010	1.00	44.77
ATOM	5002	OH2	WAT	1700	19.674	35.630	48.817	1.00	37.99
ATOM	5003	OH2	WAT	1701	29.352	35.433	88.902	1.00	36.49
ATOM	5004	OH2	WAT	1702	3.424	41.122	89.571	1.00	49.47
ATOM	5005	OH2	WAT	1703	13.814	37.050	42.503	1.00	40.01
ATOM	5006	OH2	WAT	1704	-2.214	17.676	52.209	1.00	43.68
ATOM	5007	OH2	WAT	1705	16.489	39.048	98.297	1.00	46.02
ATOM	5008	OH2	WAT	1706	32.249	24.416	64.381	1.00	44.55
ATOM	5009	OH2	WAT	1707	4.749	15.474	75.056	1.00	47.16
ATOM	5010	OH2	WAT	1708	-19.127	10.611	54.387	1.00	35.32
ATOM	5011	OH2	WAT	1709	-12.127	8.475	61.939	1.00	42.87
ATOM	5012	OH2	WAT	1710	6.792	48.631	80.692	1.00	41.21
ATOM	5013	OH2	WAT	1711	3.560	44.527	84.122	1.00	45.86
ATOM	5014	OH2	WAT	1712	38.523	32.022	83.786	1.00	49.70
ATOM	5015	OH2	WAT	1713	21.041	27.107	77.804	1.00	42.26
ATOM	5016	OH2	WAT	1714	11.768	37.274	92.752	1.00	37.06
ATOM	5017	OH2	WAT	1715	-4.237	11.250	68.462	1.00	41.49
ATOM	5018	OH2	WAT	1716	-18.494	7.876	54.132	1.00	42.48
ATOM	5019	OH2	WAT	1717	6.105	8.561	68.251	1.00	47.80
ATOM	5020	OH2	WAT	1718	38.226	24.383	78.661	1.00	39.56
ATOM	5021	OH2	WAT	1719	14.487	40.409	95.112	1.00	37.07
ATOM	5022	OH2	WAT	1720	-3.082	19.200	75.753	1.00	37.40
ATOM	5023	OH2	WAT	1721	9.359	24.755	68.485	1.00	41.75
ATOM	5024	OH2	WAT	1722	-2.446	47.296	65.521	1.00	42.14
ATOM	5025	OH2	WAT	1723	30.977	31.097	90.286	1.00	42.55
ATOM	5026	OH2	WAT	1724	-26.841	22.969	49.922	1.00	42.75
ATOM	5027	OH2	WAT	1725	-3.087	22.756	78.399	1.00	40.11
ATOM	5028	OH2	WAT	1726	4.165	20.488	83.730	1.00	44.08
ATOM	5029	OH2	WAT	1727	15.534	6.363	45.777	1.00	48.42
ATOM	5030	OH2	WAT	1728	5.948	40.011	28.863	1.00	43.45

ATOM	5031	OH2 WAT	1729	16.460	7.878	48.472	1.00	41.96
ATOM	5032	OH2 WAT	1730	12.562	39.752	97.062	1.00	49.02
ATOM	5033	OH2 WAT	1731	33.685	37.283	83.920	1.00	46.13
ATOM	5034	OH2 WAT	1732	6.181	7.168	59.873	1.00	48.40
ATOM	5035	OH2 WAT	1733	3.149	39.506	29.993	1.00	45.88
ATOM	5036	OH2 WAT	1734	-13.622	27.919	56.755	1.00	48.83
ATOM	5037	OH2 WAT	1735	43.567	38.591	61.109	1.00	45.36
ATOM	5038	OH2 WAT	1736	-17.195	7.087	57.342	1.00	42.92
ATOM	5039	OH2 WAT	1737	15.787	53.842	73.619	1.00	49.81
ATOM	5040	OH2 WAT	1738	-8.771	30.697	73.297	1.00	43.64
ATOM	5041	OH2 WAT	1739	-2.225	39.636	37.310	1.00	43.39
ATOM	5042	OH2 WAT	1740	5.069	28.569	69.442	1.00	45.66
ATOM	5043	OH2 WAT	1741	16.415	43.197	94.376	1.00	46.99
ATOM	5044	OH2 WAT	1742	27.373	18.022	47.270	1.00	47.12
ATOM	5045	OH2 WAT	1743	-0.059	4.206	63.831	1.00	42.88
ATOM	5046	OH2 WAT	1744	-11.154	30.927	54.387	1.00	52.26
ATOM	5047	OH2 WAT	1745	-6.768	23.122	78.688	1.00	44.70
ATOM	5048	OH2 WAT	1746	-6.968	29.365	56.721	1.00	45.22
ATOM	5049	OH2 WAT	1747	14.229	12.218	66.710	1.00	43.93
ATOM	5050	OH2 WAT	1748	-0.918	38.786	78.477	1.00	42.70
ATOM	5051	OH2 WAT	1749	-5.531	33.617	73.264	1.00	38.15
ATOM	5052	OH2 WAT	1750	9.973	8.291	66.336	1.00	42.52
ATOM	5053	OH2 WAT	1751	27.908	51.916	54.593	1.00	37.35
ATOM	5054	OH2 WAT	1752	-17.772	20.478	45.379	1.00	41.68
ATOM	5055	OH2 WAT	1753	8.918	26.672	94.516	1.00	49.67
ATOM	5056	OH2 WAT	1754	-5.670	48.003	63.067	1.00	55.22
ATOM	5057	OH2 WAT	1755	-11.066	39.297	33.205	1.00	48.18
ATOM	5058	OH2 WAT	1756	-12.066	32.959	34.538	1.00	46.47
ATOM	5059	OH2 WAT	1757	33.942	54.327	72.918	1.00	48.80
ATOM	5060	OH2 WAT	1758	-15.327	37.164	47.758	1.00	54.36
ATOM	5061	OH2 WAT	1759	9.703	50.426	79.973	1.00	48.17
ATOM	5062	OH2 WAT	1760	2.417	13.433	72.057	1.00	48.23
ATOM	5063	OH2 WAT	1761	6.930	14.681	76.735	1.00	50.24
ATOM	5064	OH2 WAT	1762	25.718	13.692	58.276	1.00	47.89
ATOM	5065	OH2 WAT	1763	-2.193	40.455	67.942	1.00	49.84
ATOM	5066	OH2 WAT	1764	-5.445	17.973	74.472	1.00	46.11
ATOM	5067	OH2 WAT	1765	5.122	13.806	83.998	1.00	46.77
ATOM	5068	OH2 WAT	1766	39.591	48.222	62.329	1.00	49.25
ATOM	5069	OH2 WAT	1767	-6.794	25.425	30.316	1.00	47.64
ATOM	5070	OH2 WAT	1768	26.714	31.769	54.428	1.00	52.52
ATOM	5071	OH2 WAT	1769	37.396	29.063	85.658	1.00	56.14
ATOM	5072	OH2 WAT	1770	23.959	24.401	85.831	1.00	46.73

ATOM	5073	OH2 WAT	1771	-0.047	44.200	74.985	1.00	52.55
ATOM	5074	OH2 WAT	1772	-21.960	11.277	53.861	1.00	53.59
ATOM	5075	OH2 WAT	1773	6.154	13.114	81.149	1.00	47.88
ATOM	5076	OH2 WAT	1774	-13.413	36.525	35.610	1.00	56.16
ATOM	5077	OH2 WAT	1775	39.860	48.665	69.731	1.00	53.93
ATOM	5078	OH2 WAT	1776	29.024	38.690	51.418	1.00	48.04
ATOM	5079	OH2 WAT	1777	-7.531	28.929	31.841	1.00	54.49
ATOM	5080	OH2 WAT	1778	29.255	32.402	96.720	1.00	52.49
ATOM	5081	OH2 WAT	1779	26.352	26.019	45.109	1.00	49.60
ATOM	5082	OH2 WAT	1780	4.860	44.771	88.453	1.00	50.68
ATOM	5083	OH2 WAT	1781	25.873	24.933	41.896	1.00	48.69
ATOM	5084	OH2 WAT	1782	26.211	26.634	101.343	1.00	52.74
ATOM	5085	OH2 WAT	1783	3.055	11.289	74.432	1.00	45.72
ATOM	5086	OH2 WAT	1784	7.661	18.112	85.954	1.00	48.81
ATOM	5087	OH2 WAT	1785	-16.672	27.583	44.719	1.00	55.31
ATOM	5088	OH2 WAT	1786	2.910	25.198	83.625	1.00	49.87
ATOM	5089	OH2 WAT	1787	26.350	48.607	81.331	1.00	44.46
ATOM	5090	OH2 WAT	1788	10.518	12.826	70.582	1.00	47.48
ATOM	5091	OH2 WAT	1789	7.133	52.956	72.380	1.00	57.24
ATOM	5092	OH2 WAT	1790	3.653	30.543	86.235	1.00	53.16
ATOM	5093	OH2 WAT	1791	9.560	4.890	55.333	1.00	54.85
ATOM	5094	OH2 WAT	1792	23.232	39.654	94.565	1.00	55.04
ATOM	5095	OH2 WAT	1793	-7.535	2.783	57.754	1.00	51.46
ATOM	5096	OH2 WAT	1794	12.411	40.825	46.744	1.00	54.67
ATOM	5097	OH2 WAT	1795	11.197	41.885	36.645	1.00	50.79
ATOM	5098	OH2 WAT	1796	-12.552	25.345	72.269	1.00	61.21
ATOM	5099	OH2 WAT	1797	-2.078	36.525	80.112	1.00	54.91
ATOM	5100	OH2 WAT	1798	23.114	24.985	78.376	1.00	52.73
ATOM	5101	OH2 WAT	1799	19.220	21.423	39.755	1.00	49.42
ATOM	5102	OH2 WAT	1800	-2.284	39.159	82.845	1.00	55.63
ATOM	5103	OH2 WAT	1801	-0.512	22.635	80.413	1.00	60.79
ATOM	5104	OH2 WAT	1802	-0.123	16.320	85.667	1.00	51.79
ATOM	5105	OH2 WAT	1803	35.061	46.102	53.829	1.00	58.02
ATOM	5106	OH2 WAT	1804	-4.259	22.563	32.685	1.00	60.85
ATOM	5107	OH2 WAT	1805	10.434	35.880	34.519	1.00	51.29
ATOM	5108	OH2 WAT	1806	6.789	33.635	89.132	1.00	51.16
ATOM	5109	OH2 WAT	1807	12.335	33.794	34.567	1.00	53.28
ATOM	5110	OH2 WAT	1808	31.474	23.027	58.380	1.00	58.66
ATOM	5111	OH2 WAT	1809	-16.505	30.250	53.625	1.00	55.22
ATOM	5112	OH2 WAT	1810	10.509	17.449	39.527	1.00	58.60
ATOM	5113	OH2 WAT	1811	14.169	25.877	34.328	1.00	47.53
ATOM	5114	OH2 WAT	1812	21.109	25.807	32.398	1.00	59.97

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ATOM   5115  OH2 WAT  1813       -6.576  36.042  70.840  1.00 53.98
ATOM   5116  OH2 WAT  1814      -15.991  27.537  54.979  1.00 60.72
ATOM   5117  OH2 WAT  1815      -13.782   5.830  63.174  1.00 61.92
ATOM   5118  OH2 WAT  1816      -16.021  31.205  40.541  1.00 62.27
ATOM   5119  OH2 WAT  1817        2.853  46.292  76.328  1.00 59.34
ATOM   5120  OH2 WAT  1818       25.517  39.086  96.398  1.00 59.30
ATOM   5121  OH2 WAT  1819       27.114  50.370  48.300  1.00 55.87
ATOM   5122  OH2 WAT  1820       27.081  26.056  58.588  1.00 59.51
ATOM   5123  OH2 WAT  1821      -13.409  13.149  46.691  1.00 51.79
ATOM   5124  OH2 WAT  1822       43.373  39.580  58.099  1.00 62.74
ATOM   5125  OH2 WAT  1823       21.766  48.826  78.538  1.00 60.45
ATOM   5126  OH2 WAT  1824       10.405  37.830  95.813  1.00 62.35
ATOM   5127  OH2 WAT  1825        4.295  32.687  28.457  1.00 62.80
ATOM   5128  OH2 WAT  1826       -8.193  16.874  69.552  1.00 60.29
ATOM   5129  OH2 WAT  1827      -11.300   5.087  55.076  1.00 60.79
ATOM   5130  OH2 WAT  1828       -1.238  33.046  77.554  1.00 61.95
ATOM   5131  OH2 WAT  1829        2.899  23.058  87.154  1.00 69.68
ATOM   5132  OH2 WAT  1830      -22.590  16.235  48.115  1.00 52.62
ATOM   5133  OH2 WAT  1831       27.169  34.424  51.325  1.00 64.19
ATOM   5134  OH2 WAT  1832       14.190  28.489  31.483  1.00 72.75
ATOM   5135  OH2 WAT  1833       32.903  29.152  53.644  1.00 77.42
ATOM   5136  OH2 WAT  1834       10.104  55.108  71.015  1.00 72.75
ATOM   5137  OH2 WAT  1835      -18.159  26.710  58.369  1.00 65.60
ATOM   5138  OH2 WAT  1836       18.404  18.948  72.819  1.00 17.59
ATOM   5139  OH2 WAT  1837        4.084  17.488  77.193  1.00 29.87
ATOM   5140' OH2 WAT  1838       11.065  34.505  92.940  1.00 36.64
ATOM   5141  OH2 WAT  1839        5.428  36.847  87.209  1.00 33.98
ATOM   5142  OH2 WAT  1840        8.437  41.934  86.398  1.00 33.52
ATOM   5143  OH2 WAT  1841       25.727  50.440  66.511  1.00 42.90
ATOM   5144  OH2 WAT  1842       10.734  53.397  68.506  1.00 37.62
ATOM   5145  OH2 WAT  1843       28.987  42.739  80.942  1.00 38.13
ATOM   5146  OH2 WAT  1844      -25.815  27.926  56.062  1.00 37.71
ATOM   5147  OH2 WAT  1845        5.841  26.528  71.439  1.00 38.42
ATOM   5148  OH2 WAT  1846       33.484  43.195  79.808  1.00 37.61
ATOM   5149  OH2 WAT  1847      -10.428  13.923  44.258  1.00 39.14
ATOM   5150  OH2 WAT  1848       21.965  36.010  99.187  1.00 36.87
ATOM   5151  OH2 WAT  1849      -12.730  12.199  49.180  1.00 39.59
ATOM   5152  OH2 WAT  1850      -11.467  41.161  39.822  1.00 38.97
ATOM   5153  OH2 WAT  1851       12.246  25.639  32.105  1.00 37.40
ATOM   5154  OH2 WAT  1852       23.911  26.526  76.197  1.00 35.46
ATOM   5155  OH2 WAT  1853        7.428  13.763  36.881  1.00 54.41
ATOM   5156  OH2 WAT  1854       -5.276  47.062  65.766  1.00 41.34
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ATOM	5157	OH2 WAT	1855	1.661	29.159	28.841	1.00	40.25
ATOM	5158	OH2 WAT	1856	14.915	47.315	81.020	1.00	36.61
ATOM	5159	OH2 WAT	1857	20.240	9.726	64.455	1.00	42.32
ATOM	5160	OH2 WAT	1858	5.168	14.504	72.460	1.00	35.86
ATOM	5161	OH2 WAT	1859	-17.237	10.391	64.141	1.00	38.16
ATOM	5162	OH2 WAT	1860	-17.109	15.526	69.214	1.00	41.90
ATOM	5163	OH2 WAT	1861	4.328	51.807	68.565	1.00	39.46
ATOM	5164	OH2 WAT	1862	33.410	36.216	87.375	1.00	42.92
ATOM	5165	OH2 WAT	1863	29.511	16.130	69.775	1.00	43.05
ATOM	5166	OH2 WAT	1864	6.949	55.444	60.693	1.00	36.88
ATOM	5167	OH2 WAT	1865	-24.302	23.922	65.933	1.00	45.47
ATOM	5168	OH2 WAT	1866	0.998	36.866	80.183	1.00	37.25
ATOM	5169	OH2 WAT	1867	13.039	47.793	54.512	1.00	33.90
ATOM	5170	OH2 WAT	1868	-9.554	19.945	36.929	1.00	43.56
ATOM	5171	OH2 WAT	1869	27.757	23.629	84.062	1.00	42.33
ATOM	5172	OH2 WAT	1870	-2.638	19.890	78.374	1.00	40.97
ATOM	5173	OH2 WAT	1871	28.763	20.590	62.850	1.00	34.52
ATOM	5174	OH2 WAT	1872	16.329	14.923	81.412	1.00	38.58
ATOM	5175	OH2 WAT	1873	16.022	37.026	47.208	1.00	47.66
ATOM	5176	OH2 WAT	1874	-8.095	42.487	46.704	1.00	44.06
ATOM	5177	OH2 WAT	1875	14.777	21.294	96.400	1.00	34.12
ATOM	5178	OH2 WAT	1876	-28.507	17.326	52.831	1.00	41.37
ATOM	5179	OH2 WAT	1877	-7.455	20.610	74.996	1.00	40.98
ATOM	5180	OH2 WAT	1878	5.615	22.349	90.125	1.00	45.29
ATOM	5181	OH2 WAT	1879	19.033	37.882	44.929	1.00	39.79
ATOM	5182	OH2 WAT	1880	-20.719	19.062	72.717	1.00	50.49
ATOM	5183	OH2 WAT	1881	20.988	36.261	46.323	1.00	42.50
ATOM	5184	OH2 WAT	1882	28.040	17.867	63.692	1.00	34.70
ATOM	5185	OH2 WAT	1883	3.063	24.478	28.962	1.00	40.88
ATOM	5186	OH2 WAT	1884	23.930	9.373	55.631	1.00	38.50
ATOM	5187	OH2 WAT	1885	31.259	33.764	89.895	1.00	38.63
ATOM	5188	OH2 WAT	1886	34.579	26.114	83.563	1.00	37.79
ATOM	5189	OH2 WAT	1887	19.853	42.073	87.961	1.00	41.40
ATOM	5190	OH2 WAT	1888	-14.848	27.514	39.825	1.00	45.87
ATOM	5191	OH2 WAT	1889	40.143	45.607	65.317	1.00	40.87
ATOM	5192	OH2 WAT	1890	-14.559	35.878	42.644	1.00	50.12
ATOM	5193	OH2 WAT	1891	18.207	48.958	78.263	1.00	47.18
ATOM	5194	OH2 WAT	1892	28.289	23.625	45.683	1.00	42.00
ATOM	5195	OH2 WAT	1893	42.906	38.456	83.303	1.00	43.22
ATOM	5196	OH2 WAT	1894	-26.124	24.437	52.626	1.00	39.52
ATOM	5197	OH2 WAT	1895	16.498	25.372	32.908	1.00	52.94
ATOM	5198	OH2 WAT	1896	20.665	34.339	101.249	1.00	42.48

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ATOM   5199   OH2  WAT   1897      36.060   44.000   57.988   1.00  46.86
ATOM   5200   OH2  WAT   1898     -13.421   28.892   66.553   1.00  37.51
ATOM   5201   OH2  WAT   1899      15.167   21.455   35.364   1.00  43.55
ATOM   5202   OH2  WAT   1900     -24.579   18.397   67.481   1.00  52.06
ATOM   5203   OH2  WAT   1901      37.546   26.538   82.140   1.00  42.13
ATOM   5204   OH2  WAT   1902     -19.123   37.834   56.134   1.00  54.63
ATOM   5205   OH2  WAT   1903     -14.807   14.104   73.228   1.00  53.08
ATOM   5206   OH2  WAT   1904      11.140   35.514   98.864   1.00  57.81
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Figure 2

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CRYST1   72.400   72.400  102.800  90.00   90.00   90.00 P41212
SCALE1        0.01381   0.00000   0.00000     0.00000
SCALE2        0.00000   0.01381   0.00000     0.00000
SCALE3        0.00000   0.00000   0.00973     0.00000
TOPH19.pep -MACRO for protein sequence
REMARK DATE:28-Apr-99  07:17:24      created by user: qiuxl
ATOM      1  CB  MET    1      18.106  49.526  18.436  1.00 19.88
ATOM      2  CG  MET    1      18.041  48.804  17.083  1.00 18.51
ATOM      3  SD  MET    1      17.376  49.874  15.769  1.00 23.89
ATOM      4  CE  MET    1      18.661  51.111  15.659  1.00 22.03
ATOM      5  C   MET    1      16.717  48.031  19.848  1.00 16.56
ATOM      6  O   MET    1      16.967  47.800  21.036  1.00 15.62
ATOM      7  N   MET    1      16.906  50.400  20.437  1.00 18.51
ATOM      8  CA  MET    1      16.823  49.445  19.284  1.00 18.42
ATOM      9  N   TYR    2      16.363  47.090  18.989  1.00 17.35
ATOM     10  CA  TYR    2      16.267  45.700  19.393  1.00 16.83
ATOM     11  CB  TYR    2      14.820  45.193  19.289  1.00 19.95
ATOM     12  CG  TYR    2      13.897  45.773  20.326  1.00 18.43
ATOM     13  CD1 TYR    2      13.102  46.883  20.042  1.00 21.85
ATOM     14  CE1 TYR    2      12.288  47.448  21.021  1.00 14.38
ATOM     15  CD2 TYR    2      13.843  45.238  21.601  1.00 19.10
ATOM     16  CE2 TYR    2      13.034  45.785  22.566  1.00 15.65
ATOM     17  CZ  TYR    2      12.265  46.891  22.267  1.00 19.41
ATOM     18  OH  TYR    2      11.483  47.442  23.250  1.00 28.49
ATOM     19  C   TYR    2      17.145  44.903  18.446  1.00 15.17
ATOM     20  O   TYR    2      17.556  45.394  17.380  1.00 16.02
ATOM     21  N   THR    3      17.429  43.673  18.841  1.00 13.16
ATOM     22  CA  THR    3      18.231  42.780  18.024  1.00 12.22
ATOM     23  CB  THR    3      19.299  42.092  18.860  1.00 13.10
ATOM     24  OG1 THR    3      19.917  43.015  19.775  1.00 15.57
ATOM     25  CG2 THR    3      20.307  41.432  17.962  1.00 12.87
ATOM     26  C   THR    3      17.344  41.637  17.524  1.00  8.32
ATOM     27  O   THR    3      16.652  41.015  18.322  1.00  5.94
ATOM     28  N   LYS    4      17.378  41.368  16.228  1.00  8.63
ATOM     29  CA  LYS    4      16.641  40.243  15.653  1.00 11.98
ATOM     30  CB  LYS    4      15.622  40.693  14.598  1.00 12.79
ATOM     31  CG  LYS    4      14.291  41.060  15.167  1.00  9.09
ATOM     32  CD  LYS    4      13.278  41.203  14.067  1.00  4.84
ATOM     33  CE  LYS    4      11.909  41.436  14.654  1.00 11.25
ATOM     34  NZ  LYS    4      11.050  42.156  13.679  1.00 15.62
ATOM     35  C   LYS    4      17.665  39.327  14.985  1.00 14.89
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ATOM	36	O	LYS	4	18.701	39.804	14.506	1.00	15.25
ATOM	37	N	ILE	5	17.396	38.019	14.982	1.00	12.86
ATOM	38	CA	ILE	5	18.286	37.052	14.350	1.00	7.37
ATOM	39	CB	ILE	5	18.254	35.672	15.088	1.00	11.85
ATOM	40	CG2	ILE	5	19.113	34.616	14.318	1.00	13.54
ATOM	41	CG1	ILE	5	18.772	35.849	16.507	1.00	5.34
ATOM	42	CD1	ILE	5	18.353	34.761	17.509	1.00	17.13
ATOM	43	C	ILE	5	17.734	36.875	12.972	1.00	8.54
ATOM	44	O	ILE	5	16.656	36.318	12.801	1.00	9.30
ATOM	45	N	ILE	6	18.434	37.409	11.982	1.00	6.05
ATOM	46	CA	ILE	6	17.996	37.304	10.603	1.00	6.18
ATOM	47	CB	ILE	6	18.158	38.654	9.853	1.00	6.26
ATOM	48	CG2	ILE	6	17.251	39.706	10.488	1.00	8.43
ATOM	49	CG1	ILE	6	19.616	39.136	9.908	1.00	9.12
ATOM	50	CD1	ILE	6	19.959	40.087	8.768	1.00	5.90
ATOM	51	C	ILE	6	18.791	36.255	9.859	1.00	5.90
ATOM	52	O	ILE	6	18.542	36.007	8.695	1.00	8.79
ATOM	53	N	GLY	7	19.756	35.635	10.522	1.00	11.72
ATOM	54	CA	GLY	7	20.572	34.640	9.844	1.00	11.88
ATOM	55	C	GLY	7	21.018	33.553	10.785	1.00	9.01
ATOM	56	O	GLY	7	21.323	33.818	11.941	1.00	10.99
ATOM	57	N	THR	8	21.104	32.328	10.287	1.00	11.16
ATOM	58	CA	THR	8	21.465	31.224	11.145	1.00	11.84
ATOM	59	CB	THR	8	20.165	30.709	11.818	1.00	12.94
ATOM	60	OG1	THR	8	20.272	30.753	13.247	1.00	15.93
ATOM	61	CG2	THR	8	19.760	29.379	11.329	1.00	12.55
ATOM	62	C	THR	8	22.197	30.199	10.262	1.00	12.11
ATOM	63	O	THR	8	21.915	30.110	9.056	1.00	14.58
ATOM	64	N	GLY	9	23.194	29.515	10.840	1.00	13.15
ATOM	65	CA	GLY	9	23.981	28.529	10.099	1.00	11.04
ATOM	66	C	GLY	9	24.653	27.520	11.018	1.00	12.13
ATOM	67	O	GLY	9	24.735	27.724	12.223	1.00	13.05
ATOM	68	N	SER	10	25.114	26.407	10.472	1.00	11.72
ATOM	69	CA	SER	10	25.779	25.426	11.307	1.00	12.43
ATOM	70	CB	SER	10	24.760	24.570	12.091	1.00	16.36
ATOM	71	OG	SER	10	24.141	23.582	11.283	1.00	18.52
ATOM	72	C	SER	10	26.650	24.554	10.429	1.00	10.47
ATOM	73	O	SER	10	26.347	24.379	9.249	1.00	10.90
ATOM	74	N	TYR	11	27.787	24.120	10.982	1.00	9.29
ATOM	75	CA	TYR	11	28.717	23.247	10.280	1.00	7.27
ATOM	76	CB	TYR	11	29.983	23.988	9.838	1.00	11.81
ATOM	77	CG	TYR	11	31.016	23.061	9.183	1.00	8.96

ATOM	78	CD1	TYR	11	30.932	22.724	7.830	1.00	10.10
ATOM	79	CE1	TYR	11	31.842	21.823	7.255	1.00	11.38
ATOM	80	CD2	TYR	11	32.030	22.482	9.938	1.00	9.57
ATOM	81	CE2	TYR	11	32.924	21.588	9.371	1.00	10.49
ATOM	82	CZ	TYR	11	32.826	21.265	8.042	1.00	10.88
ATOM	83	OH	TYR	11	33.723	20.369	7.509	1.00	11.64
ATOM	84	C	TYR	11	29.089	22.089	11.202	1.00	5.86
ATOM	85	O	TYR	11	29.377	22.277	12.371	1.00	6.91
ATOM	86	N	LEU	12	29.015	20.883	10.677	1.00	9.22
ATOM	87	CA	LEU	12	29.362	19.690	11.435	1.00	11.25
ATOM	88	CB	LEU	12	28.122	18.874	11.757	1.00	11.33
ATOM	89	CG	LEU	12	27.267	19.555	12.821	1.00	15.58
ATOM	90	CD1	LEU	12	25.871	19.001	12.750	1.00	14.86
ATOM	91	CD2	LEU	12	27.881	19.403	14.217	1.00	12.85
ATOM	92	C	LEU	12	30.295	18.929	10.513	1.00	9.78
ATOM	93	O	LEU	12	30.000	18.766	9.330	1.00	12.19
ATOM	94	N	PRO	13	31.460	18.504	11.032	1.00	12.57
ATOM	95	CD	PRO	13	31.828	18.591	12.452	1.00	12.27
ATOM	96	CA	PRO	13	32.485	17.768	10.286	1.00	12.60
ATOM	97	CB	PRO	13	33.486	17.406	11.369	1.00	11.46
ATOM	98	CG	PRO	13	33.293	18.452	12.390	1.00	12.42
ATOM	99	C	PRO	13	31.958	16.545	9.549	1.00	12.96
ATOM	100	O	PRO	13	30.906	16.012	9.872	1.00	11.39
ATOM	101	N	GLU	14	32.705	16.120	8.545	1.00	16.21
ATOM	102	CA	GLU	14	32.341	14.981	7.715	1.00	19.24
ATOM	103	CB	GLU	14	33.336	14.840	6.538	1.00	19.55
ATOM	104	CG	GLU	14	33.881	16.187	5.934	1.00	25.69
ATOM	105	CD	GLU	14	35.204	16.753	6.595	1.00	26.69
ATOM	106	OE1	GLU	14	35.234	17.110	7.814	1.00	15.91
ATOM	107	OE2	GLU	14	36.213	16.891	5.856	1.00	22.17
ATOM	108	C	GLU	14	32.275	13.665	8.506	1.00	21.25
ATOM	109	O	GLU	14	31.339	12.882	8.332	1.00	23.08
ATOM	110	N	GLN	15	33.227	13.450	9.413	1.00	16.44
ATOM	111	CA	GLN	15	33.301	12.213	10.176	1.00	14.70
ATOM	112	CB	GLN	15	34.706	12.036	10.736	1.00	20.05
ATOM	113	CG	GLN	15	34.923	10.714	11.436	1.00	19.15
ATOM	114	CD	GLN	15	36.244	10.660	12.173	1.00	21.79
ATOM	115	OE1	GLN	15	37.204	11.338	11.811	1.00	16.56
ATOM	116	NE2	GLN	15	36.292	9.855	13.223	1.00	22.64
ATOM	117	C	GLN	15	32.304	12.043	11.308	1.00	16.13
ATOM	118	O	GLN	15	32.149	12.919	12.153	1.00	13.44
ATOM	119	N	VAL	16	31.714	10.856	11.374	1.00	13.86

ATOM	120	CA	VAL	16	30.743	10.538	12.409	1.00	15.25
ATOM	121	CB	VAL	16	29.399	10.109	11.798	1.00	15.19
ATOM	122	CG1	VAL	16	28.469	9.602	12.893	1.00	15.68
ATOM	123	CG2	VAL	16	28.766	11.271	11.050	1.00	16.82
ATOM	124	C	VAL	16	31.218	9.407	13.303	1.00	12.91
ATOM	125	O	VAL	16	31.496	8.307	12.831	1.00	16.95
ATOM	126	N	ARG	17	31.316	9.676	14.590	1.00	11.72
ATOM	127	CA	ARG	17	31.712	8.662	15.533	1.00	13.69
ATOM	128	CB	ARG	17	32.567	9.262	16.648	1.00	6.67
ATOM	129	CG	ARG	17	32.911	8.290	17.763	1.00	11.46
ATOM	130	CD	ARG	17	34.025	8.816	18.701	1.00	7.83
ATOM	131	NE	ARG	17	35.223	9.060	17.911	1.00	10.69
ATOM	132	CZ	ARG	17	36.245	9.826	18.275	1.00	13.25
ATOM	133	NH1	ARG	17	37.271	9.968	17.445	1.00	6.25
ATOM	134	NH2	ARG	17	36.251	10.438	19.446	1.00	8.77
ATOM	135	C	ARG	17	30.429	8.057	16.084	1.00	15.33
ATOM	136	O	ARG	17	29.605	8.756	16.661	1.00	18.05
ATOM	137	N	THR	18	30.242	6.765	15.838	1.00	17.36
ATOM	138	CA	THR	18	29.063	6.037	16.294	1.00	15.38
ATOM	139	CB	THR	18	28.673	4.913	15.290	1.00	15.38
ATOM	140	OG1	THR	18	29.696	3.905	15.268	1.00	15.80
ATOM	141	CG2	THR	18	28.481	5.468	13.893	1.00	11.34
ATOM	142	C	THR	18	29.331	5.373	17.639	1.00	16.27
ATOM	143	O	THR	18	30.452	5.422	18.153	1.00	17.43
ATOM	144	N	ASN	19	28.305	4.717	18.192	1.00	18.40
ATOM	145	CA	ASN	19	28.436	4.019	19.463	1.00	16.39
ATOM	146	CB	ASN	19	27.072	3.694	20.061	1.00	15.37
ATOM	147	CG	ASN	19	26.503	4.851	20.846	1.00	20.99
ATOM	148	OD1	ASN	19	27.144	5.895	20.985	1.00	20.51
ATOM	149	ND2	ASN	19	25.305	4.678	21.374	1.00	20.53
ATOM	150	C	ASN	19	29.268	2.754	19.306	1.00	14.40
ATOM	151	O	ASN	19	29.870	2.293	20.260	1.00	13.34
ATOM	152	N	ALA	20	29.283	2.199	18.102	1.00	14.89
ATOM	153	CA	ALA	20	30.073	1.003	17.796	1.00	15.49
ATOM	154	CB	ALA	20	29.783	0.545	16.362	1.00	14.42
ATOM	155	C	ALA	20	31.555	1.377	17.933	1.00	16.29
ATOM	156	O	ALA	20	32.343	0.674	18.583	1.00	16.52
ATOM	157	N	ASP	21	31.924	2.490	17.304	1.00	13.02
ATOM	158	CA	ASP	21	33.290	3.009	17.360	1.00	14.04
ATOM	159	CB	ASP	21	33.360	4.375	16.678	1.00	15.51
ATOM	160	CG	ASP	21	33.035	4.295	15.236	1.00	11.55
ATOM	161	OD1	ASP	21	32.860	5.355	14.605	1.00	13.02

ATOM	162	OD2	ASP	21	32.963	3.152	14.729	1.00	20.19
ATOM	163	C	ASP	21	33.861	3.126	18.765	1.00	12.62
ATOM	164	O	ASP	21	35.024	2.795	18.985	1.00	12.70
ATOM	165	N	LEU	22	33.039	3.593	19.701	1.00	9.58
ATOM	166	CA	LEU	22	33.435	3.771	21.080	1.00	10.59
ATOM	167	CB	LEU	22	32.396	4.609	21.818	1.00	9.99
ATOM	168	CG	LEU	22	32.412	6.131	21.645	1.00	7.17
ATOM	169	CD1	LEU	22	33.563	6.746	22.387	1.00	9.06
ATOM	170	CD2	LEU	22	32.502	6.449	20.222	1.00	11.56
ATOM	171	C	LEU	22	33.675	2.467	21.854	1.00	14.39
ATOM	172	O	LEU	22	34.463	2.431	22.793	1.00	10.36
ATOM	173	N	GLU	23	32.953	1.417	21.500	1.00	17.37
ATOM	174	CA	GLU	23	33.124	0.130	22.168	1.00	20.36
ATOM	175	CB	GLU	23	32.093	-0.874	21.652	1.00	21.72
ATOM	176	CG	GLU	23	30.655	-0.592	22.007	1.00	20.02
ATOM	177	CD	GLU	23	29.692	-1.602	21.376	1.00	20.97
ATOM	178	OE1	GLU	23	28.650	-1.873	21.996	1.00	17.39
ATOM	179	OE2	GLU	23	29.971	-2.120	20.266	1.00	20.36
ATOM	180	C	GLU	23	34.524	-0.377	21.835	1.00	20.96
ATOM	181	O	GLU	23	35.101	-1.185	22.561	1.00	24.60
ATOM	182	N	LYS	24	35.032	0.066	20.692	1.00	22.78
ATOM	183	CA	LYS	24	36.358	-0.303	20.240	1.00	24.59
ATOM	184	CB	LYS	24	36.404	-0.262	18.720	1.00	25.30
ATOM	185	CG	LYS	24	37.297	-1.316	18.107	1.00	28.23
ATOM	186	CD	LYS	24	36.813	-1.729	16.711	1.00	30.34
ATOM	187	CE	LYS	24	36.617	-0.523	15.790	1.00	35.27
ATOM	188	NZ	LYS	24	36.522	-0.920	14.355	1.00	35.69
ATOM	189	C	LYS	24	37.439	0.608	20.838	1.00	24.02
ATOM	190	O	LYS	24	38.614	0.291	20.781	1.00	26.14
ATOM	191	N	MET	25	37.032	1.722	21.440	1.00	25.35
ATOM	192	CA	MET	25	37.964	2.671	22.043	1.00	20.30
ATOM	193	CB	MET	25	37.506	4.101	21.802	1.00	17.17
ATOM	194	CG	MET	25	37.798	4.632	20.449	1.00	15.68
ATOM	195	SD	MET	25	36.856	6.168	20.276	1.00	14.69
ATOM	196	CE	MET	25	36.519	6.063	18.716	1.00	2.00
ATOM	197	C	MET	25	38.089	2.495	23.529	1.00	20.12
ATOM	198	O	MET	25	39.188	2.578	24.093	1.00	21.19
ATOM	199	N	VAL	26	36.946	2.378	24.190	1.00	20.03
ATOM	200	CA	VAL	26	36.933	2.224	25.631	1.00	15.55
ATOM	201	CB	VAL	26	36.559	3.552	26.352	1.00	19.79
ATOM	202	CG1	VAL	26	37.579	4.635	26.036	1.00	20.32
ATOM	203	CG2	VAL	26	35.168	4.009	25.944	1.00	23.71

ATOM	204	C	VAL	26	35.966	1.113	26.022	1.00	13.78
ATOM	205	O	VAL	26	35.214	0.584	25.194	1.00	12.17
ATOM	206	N	ASP	27	35.973	0.784	27.298	1.00	12.98
ATOM	207	CA	ASP	27	35.103	-0.260	27.800	1.00	14.74
ATOM	208	CB	ASP	27	35.676	-0.833	29.100	1.00	14.04
ATOM	209	CG	ASP	27	34.816	-1.917	29.675	1.00	12.95
ATOM	210	OD1	ASP	27	34.937	-2.183	30.880	1.00	16.39
ATOM	211	OD2	ASP	27	33.999	-2.494	28.915	1.00	19.04
ATOM	212	C	ASP	27	33.665	0.229	28.015	1.00	12.97
ATOM	213	O	ASP	27	33.236	0.497	29.146	1.00	16.43
ATOM	214	N	THR	28	32.909	0.319	26.935	1.00	14.64
ATOM	215	CA	THR	28	31.524	0.759	27.053	1.00	16.73
ATOM	216	CB	THR	28	31.399	2.311	26.861	1.00	18.66
ATOM	217	OG1	THR	28	30.140	2.771	27.368	1.00	21.07
ATOM	218	CG2	THR	28	31.523	2.702	25.394	1.00	14.87
ATOM	219	C	THR	28	30.671	-0.021	26.041	1.00	15.95
ATOM	220	O	THR	28	31.196	-0.755	25.190	1.00	14.39
ATOM	221	N	SER	29	29.361	0.125	26.146	1.00	16.71
ATOM	222	CA	SER	29	28.457	-0.581	25.255	1.00	18.35
ATOM	223	CB	SER	29	27.697	-1.685	26.011	1.00	14.52
ATOM	224	OG	SER	29	27.097	-1.196	27.197	1.00	13.35
ATOM	225	C	SER	29	27.469	0.379	24.630	1.00	17.38
ATOM	226	O	SER	29	27.151	1.401	25.202	1.00	19.21
ATOM	227	N	ASP	30	26.954	-0.005	23.477	1.00	16.66
ATOM	228	CA	ASP	30	25.976	0.767	22.744	1.00	18.08
ATOM	229	CB	ASP	30	25.523	-0.077	21.569	1.00	18.06
ATOM	230	CG	ASP	30	24.780	0.705	20.528	1.00	19.16
ATOM	231	OD1	ASP	30	24.315	1.834	20.802	1.00	19.31
ATOM	232	OD2	ASP	30	24.667	0.165	19.415	1.00	20.68
ATOM	233	C	ASP	30	24.777	1.066	23.642	1.00	17.39
ATOM	234	O	ASP	30	24.223	2.165	23.619	1.00	15.99
ATOM	235	N	GLU	31	24.426	0.090	24.467	1.00	17.55
ATOM	236	CA	GLU	31	23.296	0.196	25.369	1.00	21.83
ATOM	237	CB	GLU	31	22.902	-1.193	25.883	1.00	30.45
ATOM	238	CG	GLU	31	22.436	-2.154	24.780	1.00	39.02
ATOM	239	CD	GLU	31	22.864	-3.593	25.044	1.00	43.71
ATOM	240	OE1	GLU	31	22.610	-4.102	26.161	1.00	45.05
ATOM	241	OE2	GLU	31	23.470	-4.207	24.140	1.00	44.75
ATOM	242	C	GLU	31	23.508	1.150	26.527	1.00	18.97
ATOM	243	O	GLU	31	22.597	1.911	26.871	1.00	21.64
ATOM	244	N	TRP	32	24.682	1.114	27.153	1.00	18.61
ATOM	245	CA	TRP	32	24.940	2.027	28.264	1.00	17.67

ATOM	246	CB	TRP	32	26.272	1.709	28.959	1.00	18.46
ATOM	247	CG	TRP	32	26.531	2.488	30.260	1.00	14.22
ATOM	248	CD2	TRP	32	26.951	3.859	30.388	1.00	16.45
ATOM	249	CE2	TRP	32	27.062	4.138	31.767	1.00	13.95
ATOM	250	CE3	TRP	32	27.230	4.887	29.467	1.00	14.91
ATOM	251	CD1	TRP	32	26.417	2.011	31.541	1.00	19.11
ATOM	252	NE1	TRP	32	26.738	2.994	32.449	1.00	17.55
ATOM	253	CZ2	TRP	32	27.433	5.403	32.247	1.00	16.49
ATOM	254	CZ3	TRP	32	27.594	6.136	29.949	1.00	8.45
ATOM	255	CH2	TRP	32	27.691	6.383	31.319	1.00	11.56
ATOM	256	C	TRP	32	24.953	3.470	27.757	1.00	16.08
ATOM	257	O	TRP	32	24.358	4.343	28.380	1.00	17.69
ATOM	258	N	ILE	33	25.603	3.737	26.628	1.00	16.72
ATOM	259	CA	ILE	33	25.635	5.117	26.157	1.00	17.89
ATOM	260	CB	ILE	33	26.838	5.474	25.166	1.00	20.24
ATOM	261	CG2	ILE	33	27.739	4.302	24.848	1.00	18.87
ATOM	262	CG1	ILE	33	26.345	6.188	23.920	1.00	16.21
ATOM	263	CD1	ILE	33	26.227	7.647	24.108	1.00	24.09
ATOM	264	C	ILE	33	24.274	5.658	25.694	1.00	18.98
ATOM	265	O	ILE	33	23.922	6.779	26.031	1.00	18.61
ATOM	266	N	VAL	34	23.498	4.877	24.958	1.00	19.02
ATOM	267	CA	VAL	34	22.178	5.352	24.529	1.00	20.55
ATOM	268	CB	VAL	34	21.488	4.370	23.545	1.00	18.13
ATOM	269	CG1	VAL	34	20.028	4.715	23.393	1.00	15.19
ATOM	270	CG2	VAL	34	22.169	4.411	22.189	1.00	16.03
ATOM	271	C	VAL	34	21.259	5.609	25.740	1.00	22.08
ATOM	272	O	VAL	34	20.727	6.708	25.892	1.00	24.34
ATOM	273	N	THR	35	21.148	4.647	26.647	1.00	22.43
ATOM	274	CA	THR	35	20.268	4.818	27.798	1.00	21.56
ATOM	275	CB	THR	35	20.014	3.493	28.549	1.00	20.47
ATOM	276	OG1	THR	35	21.213	3.050	29.184	1.00	25.65
ATOM	277	CG2	THR	35	19.559	2.418	27.591	1.00	23.12
ATOM	278	C	THR	35	20.740	5.861	28.787	1.00	21.25
ATOM	279	O	THR	35	19.928	6.462	29.496	1.00	23.10
ATOM	280	N	ARG	36	22.046	6.096	28.836	1.00	20.61
ATOM	281	CA	ARG	36	22.587	7.077	29.780	1.00	20.93
ATOM	282	CB	ARG	36	23.940	6.602	30.339	1.00	19.27
ATOM	283	CG	ARG	36	23.882	5.328	31.146	1.00	20.40
ATOM	284	CD	ARG	36	23.627	5.619	32.605	1.00	22.27
ATOM	285	NE	ARG	36	23.511	4.396	33.393	1.00	27.02
ATOM	286	CZ	ARG	36	23.867	4.298	34.670	1.00	25.93
ATOM	287	NH1	ARG	36	23.734	3.152	35.315	1.00	26.63

ATOM	288	NH2	ARG	36	24.330	5.355	35.318	1.00	23.35
ATOM	289	C	ARG	36	22.702	8.517	29.247	1.00	18.28
ATOM	290	O	ARG	36	22.703	9.462	30.029	1.00	17.41
ATOM	291	N	THR	37	22.798	8.697	27.936	1.00	18.97
ATOM	292	CA	THR	37	22.932	10.050	27.405	1.00	21.02
ATOM	293	CB	THR	37	24.388	10.371	26.949	1.00	18.78
ATOM	294	OG1	THR	37	24.793	9.461	25.925	1.00	17.72
ATOM	295	CG2	THR	37	25.347	10.293	28.084	1.00	21.35
ATOM	296	C	THR	37	22.048	10.362	26.222	1.00	20.16
ATOM	297	O	THR	37	21.914	11.534	25.839	1.00	25.43
ATOM	298	N	GLY	38	21.520	9.317	25.598	1.00	16.32
ATOM	299	CA	GLY	38	20.695	9.491	24.426	1.00	12.47
ATOM	300	C	GLY	38	21.482	9.730	23.156	1.00	10.57
ATOM	301	O	GLY	38	20.908	9.864	22.100	1.00	7.69
ATOM	302	N	ILE	39	22.811	9.720	23.230	1.00	13.76
ATOM	303	CA	ILE	39	23.636	9.972	22.049	1.00	11.38
ATOM	304	CB	ILE	39	24.983	10.601	22.470	1.00	12.89
ATOM	305	CG2	ILE	39	25.816	10.948	21.256	1.00	13.42
ATOM	306	CG1	ILE	39	24.754	11.793	23.391	1.00	12.02
ATOM	307	CD1	ILE	39	26.029	12.284	24.108	1.00	10.69
ATOM	308	C	ILE	39	23.932	8.688	21.255	1.00	13.79
ATOM	309	O	ILE	39	24.279	7.643	21.835	1.00	17.01
ATOM	310	N	ARG	40	23.822	8.777	19.931	1.00	13.57
ATOM	311	CA	ARG	40	24.093	7.651	19.049	1.00	14.82
ATOM	312	CB	ARG	40	22.832	7.255	18.268	1.00	14.46
ATOM	313	CG	ARG	40	21.656	6.860	19.159	1.00	13.54
ATOM	314	CD	ARG	40	20.456	6.515	18.326	1.00	15.74
ATOM	315	NE	ARG	40	19.273	6.367	19.162	1.00	17.62
ATOM	316	CZ	ARG	40	18.837	5.216	19.656	1.00	17.47
ATOM	317	NH1	ARG	40	17.745	5.199	20.412	1.00	18.73
ATOM	318	NH2	ARG	40	19.464	4.080	19.364	1.00	18.08
ATOM	319	C	ARG	40	25.209	7.979	18.055	1.00	16.42
ATOM	320	O	ARG	40	25.968	7.096	17.641	1.00	14.33
ATOM	321	N	GLU	41	25.263	9.241	17.635	1.00	15.29
ATOM	322	CA	GLU	41	26.254	9.708	16.675	1.00	13.72
ATOM	323	CB	GLU	41	25.633	9.933	15.301	1.00	9.32
ATOM	324	CG	GLU	41	25.080	8.730	14.561	1.00	11.57
ATOM	325	CD	GLU	41	24.253	9.145	13.370	1.00	14.99
ATOM	326	OE1	GLU	41	23.277	9.886	13.572	1.00	16.71
ATOM	327	OE2	GLU	41	24.561	8.760	12.227	1.00	14.75
ATOM	328	C	GLU	41	26.784	11.057	17.132	1.00	15.70
ATOM	329	O	GLU	41	26.065	11.841	17.766	1.00	12.56

ATOM	330	N	ARG	42	28.045	11.321	16.796	1.00	17.43
ATOM	331	CA	ARG	42	28.688	12.597	17.100	1.00	15.46
ATOM	332	CB	ARG	42	29.598	12.524	18.321	1.00	15.86
ATOM	333	CG	ARG	42	29.016	11.877	19.515	1.00	16.49
ATOM	334	CD	ARG	42	29.861	10.685	19.801	1.00	18.12
ATOM	335	NE	ARG	42	29.298	9.919	20.889	1.00	16.01
ATOM	336	CZ	ARG	42	28.479	8.894	20.714	1.00	11.79
ATOM	337	NH1	ARG	42	28.006	8.282	21.775	1.00	11.99
ATOM	338	NH2	ARG	42	28.177	8.463	19.492	1.00	2.49
ATOM	339	C	ARG	42	29.537	12.894	15.876	1.00	15.14
ATOM	340	O	ARG	42	29.802	12.010	15.064	1.00	13.96
ATOM	341	N	HIS	43	29.894	14.153	15.689	1.00	14.32
ATOM	342	CA	HIS	43	30.720	14.495	14.548	1.00	11.48
ATOM	343	CB	HIS	43	30.139	15.688	13.793	1.00	8.76
ATOM	344	CG	HIS	43	29.051	15.322	12.817	1.00	2.00
ATOM	345	CD2	HIS	43	29.095	15.100	11.483	1.00	4.54
ATOM	346	ND1	HIS	43	27.728	15.211	13.177	1.00	3.25
ATOM	347	CE1	HIS	43	27.005	14.942	12.100	1.00	2.00
ATOM	348	NE2	HIS	43	27.811	14.869	11.057	1.00	2.00
ATOM	349	C	HIS	43	32.127	14.747	15.108	1.00	12.08
ATOM	350	O	HIS	43	32.279	15.074	16.284	1.00	8.31
ATOM	351	N	ILE	44	33.146	14.509	14.287	1.00	11.62
ATOM	352	CA	ILE	44	34.537	14.643	14.716	1.00	12.01
ATOM	353	CB	ILE	44	35.229	13.207	14.773	1.00	7.90
ATOM	354	CG2	ILE	44	36.612	13.271	15.456	1.00	5.15
ATOM	355	CG1	ILE	44	34.341	12.201	15.517	1.00	2.00
ATOM	356	CD1	ILE	44	34.179	12.479	16.980	1.00	2.00
ATOM	357	C	ILE	44	35.224	15.486	13.653	1.00	12.35
ATOM	358	O	ILE	44	35.126	15.181	12.444	1.00	16.48
ATOM	359	N	ALA	45	35.957	16.508	14.086	1.00	12.38
ATOM	360	CA	ALA	45	36.650	17.400	13.152	1.00	9.72
ATOM	361	CB	ALA	45	37.092	18.707	13.855	1.00	5.84
ATOM	362	C	ALA	45	37.867	16.750	12.542	1.00	6.34
ATOM	363	O	ALA	45	38.669	16.164	13.254	1.00	12.66
ATOM	364	N	ALA	46	37.969	16.862	11.230	1.00	7.59
ATOM	365	CA	ALA	46	39.102	16.391	10.466	1.00	13.49
ATOM	366	CB	ALA	46	38.930	16.806	9.011	1.00	14.08
ATOM	367	C	ALA	46	40.367	17.035	11.049	1.00	16.26
ATOM	368	O	ALA	46	40.319	18.131	11.614	1.00	14.87
ATOM	369	N	PRO	47	41.524	16.368	10.901	1.00	19.33
ATOM	370	CD	PRO	47	41.696	15.063	10.238	1.00	17.98
ATOM	371	CA	PRO	47	42.814	16.867	11.415	1.00	20.12

ATOM	372	CB	PRO	47	43.820	15.879	10.804	1.00	21.15
ATOM	373	CG	PRO	47	43.025	14.593	10.778	1.00	18.81
ATOM	374	C	PRO	47	43.144	18.314	11.032	1.00	16.54
ATOM	375	O	PRO	47	43.683	19.059	11.829	1.00	17.23
ATOM	376	N	ASN	48	42.836	18.696	9.804	1.00	14.50
ATOM	377	CA	ASN	48	43.112	20.050	9.341	1.00	19.97
ATOM	378	CB	ASN	48	43.428	20.057	7.831	1.00	20.04
ATOM	379	CG	ASN	48	42.438	19.233	6.989	1.00	27.21
ATOM	380	OD1	ASN	48	42.663	19.025	5.796	1.00	28.35
ATOM	381	ND2	ASN	48	41.350	18.770	7.595	1.00	29.36
ATOM	382	C	ASN	48	42.025	21.093	9.677	1.00	20.61
ATOM	383	O	ASN	48	42.146	22.257	9.304	1.00	23.13
ATOM	384	N	GLU	49	41.010	20.684	10.437	1.00	21.70
ATOM	385	CA	GLU	49	39.911	21.569	10.797	1.00	18.98
ATOM	386	CB	GLU	49	38.568	20.855	10.694	1.00	22.23
ATOM	387	CG	GLU	49	38.167	20.550	9.262	1.00	22.14
ATOM	388	CD	GLU	49	36.840	19.877	9.198	1.00	17.18
ATOM	389	OE1	GLU	49	36.034	20.278	8.344	1.00	16.78
ATOM	390	OE2	GLU	49	36.601	18.970	10.015	1.00	16.06
ATOM	391	C	GLU	49	40.079	22.106	12.166	1.00	15.89
ATOM	392	O	GLU	49	40.658	21.453	13.018	1.00	17.09
ATOM	393	N	THR	50	39.503	23.278	12.408	1.00	14.92
ATOM	394	CA	THR	50	39.648	23.923	13.697	1.00	13.76
ATOM	395	CB	THR	50	40.820	24.959	13.635	1.00	17.05
ATOM	396	OG1	THR	50	40.431	26.052	12.801	1.00	10.39
ATOM	397	CG2	THR	50	42.087	24.339	13.013	1.00	12.68
ATOM	398	C	THR	50	38.375	24.674	14.080	1.00	10.42
ATOM	399	O	THR	50	37.435	24.758	13.306	1.00	12.44
ATOM	400	N	VAL	51	38.391	25.259	15.261	1.00	10.11
ATOM	401	CA	VAL	51	37.296	26.059	15.771	1.00	10.98
ATOM	402	CB	VAL	51	37.686	26.624	17.156	1.00	12.45
ATOM	403	CG1	VAL	51	37.039	27.966	17.423	1.00	15.08
ATOM	404	CG2	VAL	51	37.291	25.626	18.247	1.00	14.25
ATOM	405	C	VAL	51	36.980	27.180	14.774	1.00	14.15
ATOM	406	O	VAL	51	35.802	27.541	14.557	1.00	10.41
ATOM	407	N	SER	52	38.030	27.648	14.095	1.00	13.78
ATOM	408	CA	SER	52	37.928	28.724	13.120	1.00	11.51
ATOM	409	CB	SER	52	39.269	29.497	13.037	1.00	10.14
ATOM	410	OG	SER	52	39.764	29.779	14.334	1.00	10.92
ATOM	411	C	SER	52	37.451	28.269	11.732	1.00	9.69
ATOM	412	O	SER	52	36.660	28.961	11.105	1.00	10.17
ATOM	413	N	THR	53	37.905	27.122	11.229	1.00	10.85

ATOM	414	CA	THR	53	37.433	26.714	9.900	1.00	10.30
ATOM	415	CB	THR	53	38.251	25.556	9.266	1.00	9.83
ATOM	416	OG1	THR	53	38.365	24.464	10.187	1.00	13.48
ATOM	417	CG2	THR	53	39.622	26.032	8.796	1.00	13.38
ATOM	418	C	THR	53	35.961	26.329	9.995	1.00	10.34
ATOM	419	O	THR	53	35.174	26.631	9.098	1.00	11.45
ATOM	420	N	MET	54	35.584	25.686	11.093	1.00	10.34
ATOM	421	CA	MET	54	34.186	25.306	11.285	1.00	13.46
ATOM	422	CB	MET	54	34.012	24.371	12.491	1.00	12.88
ATOM	423	CG	MET	54	34.485	22.910	12.279	1.00	9.77
ATOM	424	SD	MET	54	34.265	21.825	13.676	1.00	5.32
ATOM	425	CE	MET	54	34.388	22.797	15.065	1.00	2.00
ATOM	426	C	MET	54	33.367	26.597	11.487	1.00	15.38
ATOM	427	O	MET	54	32.344	26.797	10.835	1.00	14.74
ATOM	428	N	GLY	55	33.836	27.461	12.388	1.00	13.24
ATOM	429	CA	GLY	55	33.153	28.719	12.659	1.00	11.53
ATOM	430	C	GLY	55	32.897	29.466	11.368	1.00	12.14
ATOM	431	O	GLY	55	31.784	29.904	11.123	1.00	15.77
ATOM	432	N	PHE	56	33.917	29.590	10.527	1.00	10.24
ATOM	433	CA	PHE	56	33.783	30.250	9.235	1.00	11.83
ATOM	434	CB	PHE	56	35.134	30.248	8.517	1.00	10.32
ATOM	435	CG	PHE	56	35.051	30.611	7.070	1.00	14.92
ATOM	436	CD1	PHE	56	34.908	31.928	6.674	1.00	12.89
ATOM	437	CD2	PHE	56	35.146	29.630	6.087	1.00	14.59
ATOM	438	CE1	PHE	56	34.866	32.259	5.292	1.00	11.85
ATOM	439	CE2	PHE	56	35.104	29.960	4.725	1.00	16.17
ATOM	440	CZ	PHE	56	34.965	31.277	4.335	1.00	13.32
ATOM	441	C	PHE	56	32.709	29.621	8.333	1.00	14.35
ATOM	442	O	PHE	56	31.997	30.341	7.617	1.00	15.55
ATOM	443	N	GLU	57	32.639	28.287	8.299	1.00	14.74
ATOM	444	CA	GLU	57	31.620	27.580	7.490	1.00	15.79
ATOM	445	CB	GLU	57	31.816	26.047	7.549	1.00	17.01
ATOM	446	CG	GLU	57	33.096	25.511	6.943	1.00	16.42
ATOM	447	CD	GLU	57	33.071	25.547	5.442	1.00	20.54
ATOM	448	OE1	GLU	57	34.152	25.673	4.831	1.00	21.85
ATOM	449	OE2	GLU	57	31.970	25.437	4.861	1.00	29.43
ATOM	450	C	GLU	57	30.223	27.905	8.052	1.00	15.94
ATOM	451	O	GLU	57	29.297	28.235	7.301	1.00	18.12
ATOM	452	N	ALA	58	30.071	27.764	9.366	1.00	13.22
ATOM	453	CA	ALA	58	28.810	28.059	10.025	1.00	15.07
ATOM	454	CB	ALA	58	28.960	27.832	11.515	1.00	11.60
ATOM	455	C	ALA	58	28.414	29.532	9.729	1.00	18.97

ATOM	456	O	ALA	58	27.268	29.826	9.364	1.00	20.96
ATOM	457	N	ALA	59	29.382	30.440	9.856	1.00	17.76
ATOM	458	CA	ALA	59	29.172	31.861	9.603	1.00	17.51
ATOM	459	CB	ALA	59	30.433	32.670	9.984	1.00	18.24
ATOM	460	C	ALA	59	28.763	32.142	8.152	1.00	18.80
ATOM	461	O	ALA	59	27.851	32.937	7.905	1.00	19.93
ATOM	462	N	THR	60	29.400	31.480	7.193	1.00	16.93
ATOM	463	CA	THR	60	29.066	31.692	5.788	1.00	15.55
ATOM	464	CB	THR	60	29.970	30.848	4.854	1.00	13.71
ATOM	465	OG1	THR	60	31.329	31.298	4.958	1.00	18.20
ATOM	466	CG2	THR	60	29.529	30.991	3.416	1.00	13.34
ATOM	467	C	THR	60	27.603	31.346	5.496	1.00	15.94
ATOM	468	O	THR	60	26.953	31.969	4.651	1.00	14.16
ATOM	469	N	ARG	61	27.107	30.317	6.161	1.00	15.31
ATOM	470	CA	ARG	61	25.736	29.873	5.968	1.00	16.95
ATOM	471	CB	ARG	61	25.599	28.440	6.470	1.00	17.55
ATOM	472	CG	ARG	61	26.444	27.492	5.632	1.00	19.49
ATOM	473	CD	ARG	61	26.710	26.157	6.279	1.00	16.84
ATOM	474	NE	ARG	61	27.345	25.304	5.280	1.00	22.82
ATOM	475	CZ	ARG	61	27.676	24.030	5.456	1.00	27.79
ATOM	476	NH1	ARG	61	28.242	23.362	4.454	1.00	30.22
ATOM	477	NH2	ARG	61	27.450	23.427	6.621	1.00	28.82
ATOM	478	C	ARG	61	24.761	30.819	6.665	1.00	18.34
ATOM	479	O	ARG	61	23.712	31.154	6.106	1.00	20.88
ATOM	480	N	ALA	62	25.133	31.273	7.860	1.00	20.37
ATOM	481	CA	ALA	62	24.324	32.211	8.620	1.00	20.09
ATOM	482	CB	ALA	62	24.982	32.496	9.941	1.00	17.93
ATOM	483	C	ALA	62	24.118	33.518	7.832	1.00	22.41
ATOM	484	O	ALA	62	22.989	33.985	7.670	1.00	22.97
ATOM	485	N	ILE	63	25.192	34.092	7.298	1.00	21.92
ATOM	486	CA	ILE	63	25.050	35.335	6.557	1.00	21.77
ATOM	487	CB	ILE	63	26.404	36.099	6.370	1.00	19.95
ATOM	488	CG2	ILE	63	27.276	35.925	7.568	1.00	16.88
ATOM	489	CG1	ILE	63	27.121	35.675	5.103	1.00	21.02
ATOM	490	CD1	ILE	63	26.758	36.510	3.894	1.00	21.13
ATOM	491	C	ILE	63	24.355	35.091	5.232	1.00	23.72
ATOM	492	O	ILE	63	23.810	36.011	4.628	1.00	24.71
ATOM	493	N	GLU	64	24.415	33.845	4.771	1.00	25.77
ATOM	494	CA	GLU	64	23.784	33.441	3.527	1.00	22.58
ATOM	495	CB	GLU	64	24.054	31.965	3.261	1.00	23.39
ATOM	496	CG	GLU	64	23.386	31.427	2.040	1.00	28.28
ATOM	497	CD	GLU	64	23.944	32.002	0.764	1.00	39.44

ATOM	498	OE1	GLU	64	23.147	32.500	-0.069	1.00	42.94
ATOM	499	OE2	GLU	64	25.181	31.947	0.582	1.00	46.21
ATOM	500	C	GLU	64	22.304	33.661	3.745	1.00	20.32
ATOM	501	O	GLU	64	21.676	34.415	3.001	1.00	17.91
ATOM	502	N	MET	65	21.781	33.045	4.805	1.00	18.81
ATOM	503	CA	MET	65	20.369	33.161	5.174	1.00	20.02
ATOM	504	CB	MET	65	20.067	32.310	6.415	1.00	14.69
ATOM	505	CG	MET	65	18.607	32.366	6.900	1.00	18.41
ATOM	506	SD	MET	65	18.204	31.427	8.412	1.00	19.92
ATOM	507	CE	MET	65	17.714	32.697	9.567	1.00	24.83
ATOM	508	C	MET	65	20.051	34.641	5.451	1.00	21.18
ATOM	509	O	MET	65	19.164	35.220	4.822	1.00	22.69
ATOM	510	N	ALA	66	20.837	35.250	6.337	1.00	20.93
ATOM	511	CA	ALA	66	20.689	36.650	6.726	1.00	19.40
ATOM	512	CB	ALA	66	21.907	37.107	7.461	1.00	12.95
ATOM	513	C	ALA	66	20.435	37.555	5.529	1.00	22.19
ATOM	514	O	ALA	66	19.633	38.489	5.600	1.00	24.42
ATOM	515	N	GLY	67	21.118	37.277	4.429	1.00	21.90
ATOM	516	CA	GLY	67	20.926	38.073	3.239	1.00	21.20
ATOM	517	C	GLY	67	21.682	39.390	3.241	1.00	21.70
ATOM	518	O	GLY	67	21.323	40.319	2.521	1.00	21.44
ATOM	519	N	ILE	68	22.706	39.498	4.072	1.00	22.03
ATOM	520	CA	ILE	68	23.497	40.714	4.101	1.00	19.43
ATOM	521	CB	ILE	68	23.763	41.173	5.532	1.00	17.31
ATOM	522	CG2	ILE	68	22.450	41.344	6.244	1.00	8.34
ATOM	523	CG1	ILE	68	24.615	40.154	6.282	1.00	13.90
ATOM	524	CD1	ILE	68	25.111	40.630	7.631	1.00	15.20
ATOM	525	C	ILE	68	24.801	40.426	3.361	1.00	24.07
ATOM	526	O	ILE	68	24.962	39.345	2.787	1.00	28.17
ATOM	527	N	GLU	69	25.672	41.424	3.276	1.00	24.90
ATOM	528	CA	GLU	69	26.967	41.278	2.635	1.00	23.26
ATOM	529	CB	GLU	69	27.309	42.524	1.828	1.00	27.56
ATOM	530	CG	GLU	69	26.421	42.761	0.617	1.00	31.17
ATOM	531	CD	GLU	69	26.842	43.984	-0.180	1.00	37.72
ATOM	532	OE1	GLU	69	27.221	45.016	0.433	1.00	40.30
ATOM	533	OE2	GLU	69	26.792	43.919	-1.427	1.00	39.43
ATOM	534	C	GLU	69	27.919	41.155	3.809	1.00	22.18
ATOM	535	O	GLU	69	27.706	41.799	4.850	1.00	20.32
ATOM	536	N	LYS	70	28.956	40.334	3.669	1.00	20.21
ATOM	537	CA	LYS	70	29.874	40.167	4.787	1.00	19.36
ATOM	538	CB	LYS	70	30.904	39.052	4.553	1.00	21.64
ATOM	539	CG	LYS	70	31.524	38.976	3.174	1.00	21.60

ATOM	540	CD	LYS	70	32.173	37.611	3.001	1.00	16.17
ATOM	541	CE	LYS	70	32.542	37.337	1.564	1.00	20.41
ATOM	542	NZ	LYS	70	33.898	37.839	1.207	1.00	24.88
ATOM	543	C	LYS	70	30.530	41.447	5.263	1.00	16.93
ATOM	544	O	LYS	70	30.815	41.581	6.446	1.00	14.43
ATOM	545	N	ASP	71	30.709	42.420	4.376	1.00	17.59
ATOM	546	CA	ASP	71	31.318	43.666	4.809	1.00	19.27
ATOM	547	CB	ASP	71	32.111	44.375	3.715	1.00	24.74
ATOM	548	CG	ASP	71	33.590	44.479	4.075	1.00	28.30
ATOM	549	OD1	ASP	71	33.880	44.919	5.212	1.00	26.91
ATOM	550	OD2	ASP	71	34.458	44.073	3.262	1.00	31.17
ATOM	551	C	ASP	71	30.390	44.611	5.542	1.00	21.80
ATOM	552	O	ASP	71	30.829	45.657	6.029	1.00	22.83
ATOM	553	N	GLN	72	29.114	44.231	5.655	1.00	22.57
ATOM	554	CA	GLN	72	28.148	45.027	6.402	1.00	19.73
ATOM	555	CB	GLN	72	26.716	44.741	5.941	1.00	21.05
ATOM	556	CG	GLN	72	26.389	45.180	4.528	1.00	21.07
ATOM	557	CD	GLN	72	24.933	44.883	4.142	1.00	28.57
ATOM	558	OE1	GLN	72	24.650	43.920	3.429	1.00	28.25
ATOM	559	NE2	GLN	72	24.008	45.715	4.611	1.00	33.51
ATOM	560	C	GLN	72	28.289	44.651	7.878	1.00	18.80
ATOM	561	O	GLN	72	27.848	45.388	8.751	1.00	19.02
ATOM	562	N	ILE	73	28.897	43.492	8.153	1.00	19.44
ATOM	563	CA	ILE	73	29.087	43.018	9.531	1.00	17.43
ATOM	564	CB	ILE	73	29.754	41.612	9.566	1.00	15.10
ATOM	565	CG2	ILE	73	29.743	41.059	10.984	1.00	18.44
ATOM	566	CG1	ILE	73	28.976	40.643	8.681	1.00	20.40
ATOM	567	CD1	ILE	73	29.721	39.359	8.355	1.00	20.87
ATOM	568	C	ILE	73	29.913	44.004	10.372	1.00	15.46
ATOM	569	O	ILE	73	30.955	44.473	9.930	1.00	15.93
ATOM	570	N	GLY	74	29.490	44.245	11.610	1.00	12.85
ATOM	571	CA	GLY	74	30.189	45.187	12.454	1.00	14.53
ATOM	572	C	GLY	74	30.706	44.671	13.777	1.00	17.75
ATOM	573	O	GLY	74	31.151	45.451	14.630	1.00	20.77
ATOM	574	N	LEU	75	30.602	43.365	13.983	1.00	17.01
ATOM	575	CA	LEU	75	31.096	42.738	15.198	1.00	15.77
ATOM	576	CB	LEU	75	30.230	43.090	16.411	1.00	12.85
ATOM	577	CG	LEU	75	30.615	42.412	17.735	1.00	16.53
ATOM	578	CD1	LEU	75	32.025	42.785	18.153	1.00	17.08
ATOM	579	CD2	LEU	75	29.659	42.795	18.848	1.00	15.18
ATOM	580	C	LEU	75	31.088	41.232	14.978	1.00	16.16
ATOM	581	O	LEU	75	30.160	40.703	14.379	1.00	10.24

ATOM	582	N	ILE	76	32.158	40.568	15.400	1.00	15.07
ATOM	583	CA	ILE	76	32.275	39.115	15.296	1.00	13.28
ATOM	584	CB	ILE	76	33.348	38.693	14.304	1.00	12.67
ATOM	585	CG2	ILE	76	33.580	37.168	14.383	1.00	12.93
ATOM	586	CG1	ILE	76	32.938	39.122	12.901	1.00	8.31
ATOM	587	CD1	ILE	76	34.022	38.940	11.882	1.00	11.60
ATOM	588	C	ILE	76	32.680	38.636	16.665	1.00	12.45
ATOM	589	O	ILE	76	33.783	38.946	17.140	1.00	13.66
ATOM	590	N	VAL	77	31.756	37.949	17.327	1.00	11.37
ATOM	591	CA	VAL	77	31.992	37.414	18.650	1.00	10.31
ATOM	592	CB	VAL	77	30.903	37.857	19.660	1.00	7.10
ATOM	593	CG1	VAL	77	31.244	37.352	21.053	1.00	4.75
ATOM	594	CG2	VAL	77	30.786	39.385	19.706	1.00	5.29
ATOM	595	C	VAL	77	31.944	35.890	18.500	1.00	14.14
ATOM	596	O	VAL	77	30.963	35.345	17.970	1.00	12.11
ATOM	597	N	VAL	78	33.033	35.222	18.884	1.00	14.21
ATOM	598	CA	VAL	78	33.106	33.757	18.813	1.00	12.24
ATOM	599	CB	VAL	78	34.299	33.236	17.964	1.00	10.52
ATOM	600	CG1	VAL	78	34.298	31.673	17.935	1.00	10.36
ATOM	601	CG2	VAL	78	34.205	33.761	16.560	1.00	6.64
ATOM	602	C	VAL	78	33.210	33.198	20.205	1.00	10.75
ATOM	603	O	VAL	78	34.032	33.648	21.006	1.00	15.05
ATOM	604	N	ALA	79	32.255	32.351	20.564	1.00	11.98
ATOM	605	CA	ALA	79	32.260	31.700	21.852	1.00	11.89
ATOM	606	CB	ALA	79	30.821	31.406	22.297	1.00	12.05
ATOM	607	C	ALA	79	33.019	30.375	21.611	1.00	15.40
ATOM	608	O	ALA	79	32.560	29.535	20.813	1.00	14.67
ATOM	609	N	THR	80	34.207	30.254	22.219	1.00	17.12
ATOM	610	CA	THR	80	35.057	29.071	22.122	1.00	16.42
ATOM	611	CB	THR	80	36.204	29.211	21.118	1.00	20.94
ATOM	612	OG1	THR	80	35.862	30.090	20.037	1.00	24.36
ATOM	613	CG2	THR	80	36.579	27.831	20.599	1.00	16.48
ATOM	614	C	THR	80	35.846	28.875	23.401	1.00	16.53
ATOM	615	O	THR	80	36.097	29.823	24.151	1.00	13.82
ATOM	616	N	THR	81	36.251	27.631	23.631	1.00	15.32
ATOM	617	CA	THR	81	37.116	27.280	24.754	1.00	13.21
ATOM	618	CB	THR	81	36.330	26.703	25.935	1.00	17.30
ATOM	619	OG1	THR	81	35.351	25.766	25.452	1.00	18.62
ATOM	620	CG2	THR	81	35.651	27.843	26.725	1.00	14.90
ATOM	621	C	THR	81	38.143	26.255	24.249	1.00	10.61
ATOM	622	O	THR	81	38.826	25.606	25.035	1.00	10.17
ATOM	623	N	SER	82	38.304	26.177	22.928	1.00	9.84

ATOM	624	CA	SER	82	39.215	25.200	22.333	1.00	11.59
ATOM	625	CB	SER	82	38.462	23.859	22.173	1.00	10.31
ATOM	626	OG	SER	82	37.316	24.013	21.329	1.00	10.77
ATOM	627	C	SER	82	39.802	25.635	20.992	1.00	8.54
ATOM	628	O	SER	82	40.000	24.809	20.082	1.00	12.96
ATOM	629	N	ALA	83	40.077	26.928	20.843	1.00	8.56
ATOM	630	CA	ALA	83	40.650	27.431	19.587	1.00	6.85
ATOM	631	CB	ALA	83	40.451	28.935	19.474	1.00	8.48
ATOM	632	C	ALA	83	42.147	27.102	19.502	1.00	6.36
ATOM	633	O	ALA	83	42.786	26.831	20.507	1.00	4.54
ATOM	634	N	THR	84	42.702	27.183	18.304	1.00	6.69
ATOM	635	CA	THR	84	44.119	26.870	18.085	1.00	13.13
ATOM	636	CB	THR	84	44.398	26.732	16.578	1.00	11.56
ATOM	637	OG1	THR	84	44.074	27.959	15.921	1.00	20.65
ATOM	638	CG2	THR	84	43.545	25.629	15.979	1.00	12.09
ATOM	639	C	THR	84	45.123	27.865	18.688	1.00	10.47
ATOM	640	O	THR	84	46.242	27.507	19.048	1.00	8.41
ATOM	641	N	HIS	85	44.699	29.115	18.811	1.00	12.86
ATOM	642	CA	HIS	85	45.543	30.178	19.322	1.00	8.13
ATOM	643	CB	HIS	85	45.922	31.097	18.178	1.00	13.40
ATOM	644	CG	HIS	85	46.803	30.470	17.154	1.00	17.20
ATOM	645	CD2	HIS	85	48.147	30.504	16.998	1.00	14.47
ATOM	646	ND1	HIS	85	46.309	29.737	16.096	1.00	20.55
ATOM	647	CE1	HIS	85	47.312	29.351	15.328	1.00	18.42
ATOM	648	NE2	HIS	85	48.437	29.804	15.855	1.00	20.19
ATOM	649	C	HIS	85	44.856	31.047	20.337	1.00	8.82
ATOM	650	O	HIS	85	43.646	31.307	20.237	1.00	9.91
ATOM	651	N	ALA	86	45.649	31.511	21.297	1.00	10.72
ATOM	652	CA	ALA	86	45.217	32.433	22.322	1.00	11.32
ATOM	653	CB	ALA	86	46.281	32.556	23.386	1.00	12.32
ATOM	654	C	ALA	86	45.044	33.766	21.565	1.00	12.80
ATOM	655	O	ALA	86	44.163	34.567	21.880	1.00	15.57
ATOM	656	N	PHE	87	45.921	33.983	20.583	1.00	13.64
ATOM	657	CA	PHE	87	45.915	35.131	19.686	1.00	12.94
ATOM	658	CB	PHE	87	46.317	36.456	20.361	1.00	16.12
ATOM	659	CG	PHE	87	47.651	36.448	21.065	1.00	10.50
ATOM	660	CD1	PHE	87	47.706	36.360	22.445	1.00	11.96
ATOM	661	CD2	PHE	87	48.832	36.644	20.358	1.00	14.59
ATOM	662	CE1	PHE	87	48.922	36.476	23.126	1.00	11.67
ATOM	663	CE2	PHE	87	50.057	36.760	21.032	1.00	10.83
ATOM	664	CZ	PHE	87	50.090	36.676	22.416	1.00	9.41
ATOM	665	C	PHE	87	46.820	34.806	18.532	1.00	13.75

ATOM	666	O	PHE	87	47.867	34.199	18.736	1.00	18.53
ATOM	667	N	PRO	88	46.369	35.057	17.290	1.00	11.79
ATOM	668	CD	PRO	88	47.129	34.644	16.105	1.00	11.66
ATOM	669	CA	PRO	88	45.069	35.625	16.890	1.00	10.94
ATOM	670	CB	PRO	88	45.181	35.679	15.364	1.00	6.46
ATOM	671	CG	PRO	88	46.048	34.510	15.074	1.00	7.60
ATOM	672	C	PRO	88	43.864	34.770	17.330	1.00	11.98
ATOM	673	O	PRO	88	43.866	33.544	17.194	1.00	8.76
ATOM	674	N	SER	89	42.854	35.434	17.875	1.00	11.01
ATOM	675	CA	SER	89	41.645	34.762	18.336	1.00	10.85
ATOM	676	CB	SER	89	40.714	35.785	19.008	1.00	12.63
ATOM	677	OG	SER	89	40.184	36.643	18.011	1.00	6.39
ATOM	678	C	SER	89	40.893	34.084	17.177	1.00	8.72
ATOM	679	O	SER	89	41.145	34.331	15.985	1.00	6.74
ATOM	680	N	ALA	90	39.954	33.221	17.553	1.00	14.12
ATOM	681	CA	ALA	90	39.121	32.497	16.599	1.00	12.16
ATOM	682	CB	ALA	90	38.119	31.626	17.361	1.00	11.85
ATOM	683	C	ALA	90	38.394	33.527	15.749	1.00	9.66
ATOM	684	O	ALA	90	38.407	33.464	14.523	1.00	7.19
ATOM	685	N	ALA	91	37.883	34.548	16.435	1.00	14.01
ATOM	686	CA	ALA	91	37.132	35.645	15.824	1.00	10.88
ATOM	687	CB	ALA	91	36.620	36.573	16.887	1.00	10.28
ATOM	688	C	ALA	91	37.945	36.407	14.799	1.00	11.02
ATOM	689	O	ALA	91	37.441	36.738	13.722	1.00	13.87
ATOM	690	N	CYS	92	39.208	36.675	15.125	1.00	11.68
ATOM	691	CA	CYS	92	40.100	37.364	14.198	1.00	8.19
ATOM	692	CB	CYS	92	41.427	37.696	14.876	1.00	12.60
ATOM	693	SG	CYS	92	41.445	39.266	15.717	1.00	15.05
ATOM	694	C	CYS	92	40.373	36.500	12.978	1.00	7.76
ATOM	695	O	CYS	92	40.399	37.002	11.855	1.00	7.76
ATOM	696	N	GLN	93	40.581	35.202	13.207	1.00	9.99
ATOM	697	CA	GLN	93	40.860	34.266	12.132	1.00	9.54
ATOM	698	CB	GLN	93	41.311	32.913	12.696	1.00	14.05
ATOM	699	CG	GLN	93	42.739	32.973	13.272	1.00	15.16
ATOM	700	CD	GLN	93	43.190	31.697	13.973	1.00	23.08
ATOM	701	OE1	GLN	93	42.457	31.122	14.794	1.00	18.46
ATOM	702	NE2	GLN	93	44.426	31.267	13.683	1.00	18.67
ATOM	703	C	GLN	93	39.701	34.113	11.168	1.00	6.84
ATOM	704	O	GLN	93	39.912	34.078	9.959	1.00	12.93
ATOM	705	N	ILE	94	38.481	34.005	11.695	1.00	10.58
ATOM	706	CA	ILE	94	37.293	33.893	10.831	1.00	8.97
ATOM	707	CB	ILE	94	35.992	33.581	11.666	1.00	9.28

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ATOM	708	CG2	ILE	.	94	34.759	33.534	10.758	1.00	8.66
ATOM	709	CG1	ILE		94	36.119	32.220	12.343	1.00	2.66
ATOM	710	CD1	ILE		94	35.232	32.033	13.568	1.00	2.00
ATOM	711	C	ILE		94	37.142	35.221	10.066	1.00	6.20
ATOM	712	O	ILE		94	36.800	35.252	8.878	1.00	8.07
ATOM	713	N	GLN		95	37.443	36.324	10.732	1.00	9.02
ATOM	714	CA	GLN		95	37.341	37.628	10.084	1.00	12.07
ATOM	715	CB	GLN		95	37.784	38.731	11.055	1.00	5.58
ATOM	716	CG	GLN		95	37.710	40.127	10.483	1.00	14.48
ATOM	717	CD	GLN		95	38.858	41.032	10.967	1.00	16.48
ATOM	718	OE1	GLN		95	39.269	41.954	10.267	1.00	26.68
ATOM	719	NE2	GLN		95	39.368	40.768	12.150	1.00	16.22
ATOM	720	C	GLN		95	38.195	37.602	8.809	1.00	13.58
ATOM	721	O	GLN		95	37.695	37.814	7.699	1.00	12.35
ATOM	722	N	SER		96	39.453	37.202	8.957	1.00	15.29
ATOM	723	CA	SER		96	40.355	37.121	7.816	1.00	14.26
ATOM	724	CB	SER		96	41.765	36.739	8.273	1.00	12.75
ATOM	725	OG	SER		96	42.658	36.702	7.169	1.00	16.76
ATOM	726	C	SER		96	39.846	36.125	6.763	1.00	15.26
ATOM	727	O	SER		96	39.976	36.376	5.560	1.00	16.01
ATOM	728	N	MET		97	39.265	35.001	7.189	1.00	14.44
ATOM	729	CA	MET		97	38.734	34.034	6.207	1.00	12.97
ATOM	730	CB	MET		97	38.281	32.723	6.861	1.00	14.62
ATOM	731	CG	MET		97	39.360	31.895	7.560	1.00	14.95
ATOM	732	SD	MET		97	38.624	30.412	8.299	1.00	8.32
ATOM	733	CE	MET		97	38.779	30.656	9.874	1.00	2.00
ATOM	734	C	MET		97	37.542	34.645	5.469	1.00	11.37
ATOM	735	O	MET		97	37.303	34.340	4.303	1.00	9.24
ATOM	736	N	LEU		98	36.783	35.486	6.164	1.00	13.31
ATOM	737	CA	LEU		98	35.624	36.145	5.565	1.00	15.84
ATOM	738	CB	LEU		98	34.710	36.716	6.650	1.00	16.24
ATOM	739	CG	LEU		98	33.866	35.711	7.425	1.00	14.76
ATOM	740	CD1	LEU		98	33.288	36.400	8.640	1.00	16.92
ATOM	741	CD2	LEU		98	32.764	35.102	6.554	1.00	14.66
ATOM	742	C	LEU		98	36.064	37.230	4.597	1.00	17.59
ATOM	743	O	LEU		98	35.329	37.594	3.683	1.00	22.85
ATOM	744	N	GLY		99	37.284	37.724	4.770	1.00	19.11
ATOM	745	CA	GLY		99	37.794	38.738	3.861	1.00	18.32
ATOM	746	C	GLY		99	37.284	40.133	4.180	1.00	18.94
ATOM	747	O	GLY		99	37.089	40.953	3.284	1.00	19.77
ATOM	748	N	ILE		100	37.090	40.397	5.460	1.00	15.45
ATOM	749	CA	ILE		100	36.605	41.681	5.907	1.00	17.42

ATOM	750	CB	ILE	100	35.197	41.549	6.571	1.00	15.86
ATOM	751	CG2	ILE	100	34.182	41.070	5.534	1.00	18.17
ATOM	752	CG1	ILE	100	35.229	40.573	7.744	1.00	15.64
ATOM	753	CD1	ILE	100	33.899	40.246	8.282	1.00	7.31
ATOM	754	C	ILE	100	37.642	42.257	6.865	1.00	18.49
ATOM	755	O	ILE	100	38.325	41.518	7.582	1.00	18.22
ATOM	756	N	LYS	101	37.799	43.572	6.841	1.00	18.62
ATOM	757	CA	LYS	101	38.789	44.228	7.683	1.00	18.41
ATOM	758	CB	LYS	101	39.864	44.898	6.792	1.00	20.56
ATOM	759	CG	LYS	101	40.613	43.956	5.854	1.00	24.03
ATOM	760	CD	LYS	101	41.738	44.651	5.064	1.00	24.46
ATOM	761	CE	LYS	101	41.209	45.614	4.000	1.00	31.83
ATOM	762	NZ	LYS	101	41.016	47.036	4.462	1.00	29.96
ATOM	763	C	LYS	101	38.124	45.302	8.514	1.00	17.61
ATOM	764	O	LYS	101	37.260	46.019	8.010	1.00	20.67
ATOM	765	N	GLY	102	38.441	45.373	9.797	1.00	15.47
ATOM	766	CA	GLY	102	37.876	46.459	10.562	1.00	14.03
ATOM	767	C	GLY	102	37.145	46.250	11.846	1.00	14.20
ATOM	768	O	GLY	102	37.627	46.654	12.911	1.00	14.51
ATOM	769	N	CYS	103	35.953	45.676	11.745	1.00	14.80
ATOM	770	CA	CYS	103	35.095	45.462	12.903	1.00	13.43
ATOM	771	CB	CYS	103	33.813	44.719	12.507	1.00	15.86
ATOM	772	SG	CYS	103	34.044	42.987	12.076	1.00	22.29
ATOM	773	C	CYS	103	35.761	44.732	14.036	1.00	14.86
ATOM	774	O	CYS	103	36.662	43.907	13.814	1.00	13.05
ATOM	775	N	PRO	104	35.349	45.049	15.276	1.00	10.98
ATOM	776	CD	PRO	104	34.256	45.961	15.645	1.00	11.74
ATOM	777	CA	PRO	104	35.909	44.405	16.450	1.00	12.95
ATOM	778	CB	PRO	104	35.145	45.068	17.595	1.00	13.28
ATOM	779	CG	PRO	104	33.861	45.456	16.987	1.00	8.32
ATOM	780	C	PRO	104	35.619	42.908	16.333	1.00	16.01
ATOM	781	O	PRO	104	34.625	42.501	15.718	1.00	13.67
ATOM	782	N	ALA	105	36.544	42.094	16.825	1.00	14.98
ATOM	783	CA	ALA	105	36.399	40.646	16.773	1.00	16.63
ATOM	784	CB	ALA	105	36.975	40.099	15.477	1.00	10.08
ATOM	785	C	ALA	105	37.121	40.069	17.980	1.00	17.47
ATOM	786	O	ALA	105	38.290	40.381	18.239	1.00	19.64
ATOM	787	N	PHE	106	36.405	39.265	18.753	1.00	17.65
ATOM	788	CA	PHE	106	36.978	38.671	19.939	1.00	17.36
ATOM	789	CB	PHE	106	37.026	39.691	21.084	1.00	14.96
ATOM	790	CG	PHE	106	35.679	40.125	21.583	1.00	14.26
ATOM	791	CD1	PHE	106	34.858	40.949	20.818	1.00	12.54

ATOM	792	CD2	PHE	106	35.235	39.712	22.826	1.00	10.30
ATOM	793	CE1	PHE	106	33.608	41.342	21.306	1.00	15.37
ATOM	794	CE2	PHE	106	33.991	40.102	23.316	1.00	18.13
ATOM	795	CZ	PHE	106	33.175	40.912	22.562	1.00	9.14
ATOM	796	C	PHE	106	36.230	37.411	20.339	1.00	17.58
ATOM	797	O	PHE	106	35.139	37.135	19.815	1.00	16.40
ATOM	798	N	ASP	107	36.859	36.621	21.210	1.00	19.09
ATOM	799	CA	ASP	107	36.287	35.370	21.689	1.00	16.60
ATOM	800	CB	ASP	107	37.309	34.239	21.658	1.00	20.26
ATOM	801	CG	ASP	107	37.833	33.955	20.268	1.00	22.21
ATOM	802	OD1	ASP	107	37.228	34.398	19.268	1.00	21.03
ATOM	803	OD2	ASP	107	38.871	33.266	20.183	1.00	25.55
ATOM	804	C	ASP	107	35.868	35.551	23.103	1.00	13.80
ATOM	805	O	ASP	107	36.433	36.379	23.812	1.00	17.84
ATOM	806	N	VAL	108	34.897	34.746	23.508	1.00	9.79
ATOM	807	CA	VAL	108	34.339	34.749	24.843	1.00	10.31
ATOM	808	CB	VAL	108	32.845	35.216	24.783	1.00	12.44
ATOM	809	CG1	VAL	108	32.136	34.983	26.095	1.00	11.82
ATOM	810	CG2	VAL	108	32.776	36.690	24.377	1.00	14.89
ATOM	811	C	VAL	108	34.440	33.298	25.386	1.00	10.06
ATOM	812	O	VAL	108	34.159	32.329	24.650	1.00	7.17
ATOM	813	N	ALA	109	34.890	33.180	26.638	1.00	9.51
ATOM	814	CA	ALA	109	35.055	31.909	27.346	1.00	12.56
ATOM	815	CB	ALA	109	36.458	31.822	27.976	1.00	11.37
ATOM	816	C	ALA	109	33.986	31.709	28.434	1.00	13.21
ATOM	817	O	ALA	109	34.045	32.287	29.520	1.00	11.35
ATOM	818	N	ALA	110	33.027	30.845	28.152	1.00	14.03
ATOM	819	CA	ALA	110	31.963	30.570	29.101	1.00	15.35
ATOM	820	CB	ALA	110	30.743	31.447	28.798	1.00	13.11
ATOM	821	C	ALA	110	31.640	29.097	28.945	1.00	16.24
ATOM	822	O	ALA	110	30.530	28.640	29.221	1.00	21.69
ATOM	823	N	ALA	111	32.648	28.357	28.497	1.00	17.72
ATOM	824	CA	ALA	111	32.551	26.927	28.278	1.00	11.32
ATOM	825	CB	ALA	111	32.645	26.197	29.600	1.00	6.20
ATOM	826	C	ALA	111	31.312	26.518	27.491	1.00	9.12
ATOM	827	O	ALA	111	31.123	26.950	26.331	1.00	11.29
ATOM	828	N	CAC	112	30.456	25.709	28.104	1.00	10.38
ATOM	829	CA	CAC	112	29.270	25.229	27.412	1.00	14.44
ATOM	830	CB	CAC	112	28.799	23.888	27.980	1.00	17.69
ATOM	831	SG	CAC	112	29.712	22.439	27.254	1.00	17.65
ATOM	832	CD	CAC	112	32.183	21.508	28.594	1.00	24.17
ATOM	833	CE	CAC	112	30.937	22.403	28.616	1.00	21.28

ATOM	834	OE	CAC	112	30.752	23.125	29.602	1.00	25.29
ATOM	835	C	CAC	112	28.167	26.294	27.295	1.00	11.81
ATOM	836	O	CAC	112	27.369	26.232	26.368	1.00	10.19
ATOM	837	N	ALA	113	28.173	27.287	28.197	1.00	14.85
ATOM	838	CA	ALA	113	27.212	28.408	28.143	1.00	15.30
ATOM	839	CB	ALA	113	26.971	28.993	29.528	1.00	10.30
ATOM	840	C	ALA	113	27.724	29.521	27.195	1.00	18.08
ATOM	841	O	ALA	113	27.123	30.596	27.101	1.00	17.22
ATOM	842	N	GLY	114	28.812	29.233	26.486	1.00	16.14
ATOM	843	CA	GLY	114	29.429	30.171	25.572	1.00	15.61
ATOM	844	C	GLY	114	28.536	30.935	24.629	1.00	17.65
ATOM	845	O	GLY	114	28.577	32.158	24.618	1.00	16.58
ATOM	846	N	PHE	115	27.697	30.249	23.858	1.00	19.84
ATOM	847	CA	PHE	115	26.835	30.948	22.903	1.00	16.73
ATOM	848	CB	PHE	115	26.108	29.992	21.962	1.00	12.49
ATOM	849	CG	PHE	115	25.321	30.698	20.880	1.00	13.66
ATOM	850	CD1	PHE	115	25.920	31.005	19.663	1.00	7.95
ATOM	851	CD2	PHE	115	23.988	31.056	21.085	1.00	9.09
ATOM	852	CE1	PHE	115	25.216	31.654	18.652	1.00	11.50
ATOM	853	CE2	PHE	115	23.276	31.699	20.095	1.00	11.05
ATOM	854	CZ	PHE	115	23.886	32.003	18.865	1.00	5.87
ATOM	855	C	PHE	115	25.831	31.893	23.535	1.00	16.30
ATOM	856	O	PHE	115	25.434	32.864	22.899	1.00	18.64
ATOM	857	N	THR	116	25.404	31.617	24.759	1.00	13.18
ATOM	858	CA	THR	116	24.451	32.512	25.412	1.00	15.64
ATOM	859	CB	THR	116	23.600	31.810	26.543	1.00	15.32
ATOM	860	OG1	THR	116	24.435	31.414	27.648	1.00	13.66
ATOM	861	CG2	THR	116	22.842	30.614	25.981	1.00	8.07
ATOM	862	C	THR	116	25.187	33.742	25.948	1.00	13.97
ATOM	863	O	THR	116	24.633	34.837	25.976	1.00	16.48
ATOM	864	N	TYR	117	26.442	33.571	26.349	1.00	14.45
ATOM	865	CA	TYR	117	27.216	34.707	26.829	1.00	14.32
ATOM	866	CB	TYR	117	28.496	34.266	27.531	1.00	12.34
ATOM	867	CG	TYR	117	28.358	34.146	29.037	1.00	11.16
ATOM	868	CD1	TYR	117	27.630	33.105	29.623	1.00	4.99
ATOM	869	CE1	TYR	117	27.522	33.001	31.009	1.00	11.97
ATOM	870	CD2	TYR	117	28.964	35.073	29.876	1.00	5.97
ATOM	871	CE2	TYR	117	28.860	34.983	31.257	1.00	10.57
ATOM	872	CZ	TYR	117	28.141	33.945	31.825	1.00	8.97
ATOM	873	OH	TYR	117	28.078	33.858	33.198	1.00	9.80
ATOM	874	C	TYR	117	27.506	35.588	25.624	1.00	12.88
ATOM	875	O	TYR	117	27.199	36.772	25.652	1.00	17.62

ATOM	876	N	ALA	118	27.999	35.002	24.540	1.00	9.26
ATOM	877	CA	ALA	118	28.280	35.752	23.313	1.00	12.05
ATOM	878	CB	ALA	118	28.944	34.865	22.295	1.00	10.64
ATOM	879	C	ALA	118	27.053	36.431	22.677	1.00	15.84
ATOM	880	O	ALA	118	27.191	37.518	22.092	1.00	14.95
ATOM	881	N	LEU	119	25.884	35.771	22.727	1.00	15.23
ATOM	882	CA	LEU	119	24.639	36.322	22.164	1.00	15.64
ATOM	883	CB	LEU	119	23.519	35.254	22.143	1.00	13.39
ATOM	884	CG	LEU	119	22.169	35.533	21.443	1.00	18.76
ATOM	885	CD1	LEU	119	22.360	35.591	19.932	1.00	14.38
ATOM	886	CD2	LEU	119	21.123	34.457	21.788	1.00	12.84
ATOM	887	C	LEU	119	24.238	37.539	23.023	1.00	13.41
ATOM	888	O	LEU	119	23.857	38.586	22.496	1.00	9.96
ATOM	889	N	SER	120	24.363	37.406	24.343	1.00	13.08
ATOM	890	CA	SER	120	24.061	38.509	25.253	1.00	13.98
ATOM	891	CB	SER	120	24.279	38.082	26.701	1.00	13.92
ATOM	892	OG	SER	120	24.075	39.153	27.621	1.00	16.89
ATOM	893	C	SER	120	24.959	39.710	24.940	1.00	14.25
ATOM	894	O	SER	120	24.476	40.842	24.820	1.00	13.23
ATOM	895	N	VAL	121	26.266	39.463	24.851	1.00	12.42
ATOM	896	CA	VAL	121	27.239	40.517	24.524	1.00	11.35
ATOM	897	CB	VAL	121	28.702	39.944	24.335	1.00	11.93
ATOM	898	CG1	VAL	121	29.691	41.080	24.003	1.00	5.79
ATOM	899	CG2	VAL	121	29.153	39.229	25.591	1.00	4.11
ATOM	900	C	VAL	121	26.830	41.227	23.230	1.00	11.51
ATOM	901	O	VAL	121	26.669	42.453	23.203	1.00	8.59
ATOM	902	N	ALA	122	26.657	40.451	22.162	1.00	14.29
ATOM	903	CA	ALA	122	26.289	41.007	20.871	1.00	15.02
ATOM	904	CB	ALA	122	26.333	39.951	19.795	1.00	14.85
ATOM	905	C	ALA	122	24.920	41.667	20.910	1.00	17.60
ATOM	906	O	ALA	122	24.649	42.554	20.110	1.00	18.96
ATOM	907	N	ASP	123	24.065	41.225	21.826	1.00	15.72
ATOM	908	CA	ASP	123	22.743	41.802	21.960	1.00	16.53
ATOM	909	CB	ASP	123	21.907	40.996	22.968	1.00	9.47
ATOM	910	CG	ASP	123	20.510	41.575	23.182	1.00	8.06
ATOM	911	OD1	ASP	123	20.023	41.517	24.326	1.00	7.63
ATOM	912	OD2	ASP	123	19.907	42.110	22.231	1.00	10.92
ATOM	913	C	ASP	123	22.946	43.244	22.436	1.00	17.18
ATOM	914	O	ASP	123	22.418	44.167	21.836	1.00	16.17
ATOM	915	N	GLN	124	23.746	43.434	23.482	1.00	17.48
ATOM	916	CA	GLN	124	24.000	44.774	24.004	1.00	20.77
ATOM	917	CB	GLN	124	25.007	44.723	25.149	1.00	21.85

ATOM	918	CG	GLN	124	24.577	43.849	26.304	1.00	20.83
ATOM	919	CD	GLN	124	23.265	44.288	26.920	1.00	23.62
ATOM	920	OE1	GLN	124	22.269	43.576	26.857	1.00	23.22
ATOM	921	NE2	GLN	124	23.267	45.448	27.552	1.00	27.53
ATOM	922	C	GLN	124	24.479	45.776	22.939	1.00	21.51
ATOM	923	O	GLN	124	23.935	46.878	22.839	1.00	23.10
ATOM	924	N	TYR	125	25.484	45.398	22.153	1.00	19.48
ATOM	925	CA	TYR	125	26.029	46.272	21.123	1.00	20.55
ATOM	926	CB	TYR	125	27.209	45.606	20.387	1.00	21.62
ATOM	927	CG	TYR	125	28.508	45.630	21.186	1.00	24.82
ATOM	928	CD1	TYR	125	29.382	46.732	21.113	1.00	22.20
ATOM	929	CE1	TYR	125	30.509	46.823	21.940	1.00	18.89
ATOM	930	CD2	TYR	125	28.814	44.608	22.100	1.00	22.76
ATOM	931	CE2	TYR	125	29.943	44.689	22.923	1.00	22.28
ATOM	932	CZ	TYR	125	30.782	45.800	22.840	1.00	23.30
ATOM	933	OH	TYR	125	31.879	45.883	23.666	1.00	20.78
ATOM	934	C	TYR	125	24.974	46.700	20.122	1.00	22.58
ATOM	935	O	TYR	125	24.959	47.861	19.678	1.00	23.09
ATOM	936	N	VAL	126	24.103	45.766	19.750	1.00	20.28
ATOM	937	CA	VAL	126	23.051	46.065	18.787	1.00	18.72
ATOM	938	CB	VAL	126	22.485	44.791	18.102	1.00	19.23
ATOM	939	CG1	VAL	126	21.250	45.144	17.268	1.00	16.45
ATOM	940	CG2	VAL	126	23.550	44.145	17.183	1.00	12.90
ATOM	941	C	VAL	126	21.921	46.897	19.403	1.00	17.66
ATOM	942	O	VAL	126	21.427	47.826	18.780	1.00	19.45
ATOM	943	N	LYS	127	21.535	46.610	20.633	1.00	16.33
ATOM	944	CA	LYS	127	20.461	47.383	21.246	1.00	19.66
ATOM	945	CB	LYS	127	20.108	46.819	22.611	1.00	17.04
ATOM	946	CG	LYS	127	19.305	45.542	22.516	1.00	13.72
ATOM	947	CD	LYS	127	19.186	44.910	23.865	1.00	17.97
ATOM	948	CE	LYS	127	18.428	45.767	24.827	1.00	16.67
ATOM	949	NZ	LYS	127	18.520	45.170	26.188	1.00	22.15
ATOM	950	C	LYS	127	20.797	48.865	21.365	1.00	25.50
ATOM	951	O	LYS	127	19.948	49.730	21.070	1.00	26.38
ATOM	952	N	SER	128	22.047	49.136	21.756	1.00	27.62
ATOM	953	CA	SER	128	22.585	50.484	21.954	1.00	26.04
ATOM	954	CB	SER	128	23.990	50.406	22.580	1.00	27.56
ATOM	955	OG	SER	128	24.918	49.779	21.695	1.00	28.18
ATOM	956	C	SER	128	22.691	51.249	20.647	1.00	25.63
ATOM	957	O	SER	128	22.714	52.480	20.643	1.00	30.53
ATOM	958	N	GLY	129	22.775	50.526	19.544	1.00	21.01
ATOM	959	CA	GLY	129	22.907	51.178	18.259	1.00	20.92

ATOM	960	C	GLY	129	24.360	51.271	17.807	1.00	20.42
ATOM	961	O	GLY	129	24.660	51.884	16.785	1.00	20.51
ATOM	962	N	ALA	130	25.267	50.651	18.555	1.00	20.88
ATOM	963	CA	ALA	130	26.676	50.668	18.195	1.00	19.00
ATOM	964	CB	ALA	130	27.503	50.112	19.353	1.00	20.19
ATOM	965	C	ALA	130	26.923	49.851	16.928	1.00	19.42
ATOM	966	O	ALA	130	27.677	50.249	16.032	1.00	16.42
ATOM	967	N	VAL	131	26.231	48.722	16.824	1.00	17.81
ATOM	968	CA	VAL	131	26.418	47.824	15.686	1.00	14.63
ATOM	969	CB	VAL	131	27.092	46.502	16.176	1.00	13.60
ATOM	970	CG1	VAL	131	27.680	45.776	15.019	1.00	13.59
ATOM	971	CG2	VAL	131	28.175	46.799	17.220	1.00	8.68
ATOM	972	C	VAL	131	25.117	47.460	14.960	1.00	14.00
ATOM	973	O	VAL	131	24.162	47.008	15.590	1.00	16.77
ATOM	974	N	LYS	132	25.075	47.636	13.641	1.00	11.04
ATOM	975	CA	LYS	132	23.882	47.271	12.888	1.00	11.48
ATOM	976	CB	LYS	132	23.828	48.019	11.556	1.00	8.62
ATOM	977	CG	LYS	132	22.579	47.696	10.754	1.00	11.03
ATOM	978	CD	LYS	132	22.468	48.525	9.513	1.00	12.36
ATOM	979	CE	LYS	132	21.437	47.933	8.567	1.00	24.23
ATOM	980	NZ	LYS	132	20.109	47.675	9.214	1.00	29.42
ATOM	981	C	LYS	132	23.732	45.733	12.672	1.00	14.31
ATOM	982	O	LYS	132	22.640	45.179	12.821	1.00	14.20
ATOM	983	N	TYR	133	24.824	45.062	12.323	1.00	13.95
ATOM	984	CA	TYR	133	24.835	43.619	12.086	1.00	16.03
ATOM	985	CB	TYR	133	25.069	43.319	10.604	1.00	17.19
ATOM	986	CG	TYR	133	24.006	43.808	9.640	1.00	20.62
ATOM	987	CD1	TYR	133	24.364	44.538	8.517	1.00	20.81
ATOM	988	CE1	TYR	133	23.425	44.938	7.592	1.00	23.50
ATOM	989	CD2	TYR	133	22.652	43.489	9.814	1.00	23.42
ATOM	990	CE2	TYR	133	21.698	43.888	8.882	1.00	21.35
ATOM	991	CZ	TYR	133	22.094	44.609	7.775	1.00	21.66
ATOM	992	OH	TYR	133	21.185	44.997	6.814	1.00	27.57
ATOM	993	C	TYR	133	25.976	42.960	12.872	1.00	16.19
ATOM	994	O	TYR	133	27.147	43.312	12.685	1.00	14.26
ATOM	995	N	ALA	134	25.640	42.022	13.751	1.00	15.00
ATOM	996	CA	ALA	134	26.642	41.311	14.538	1.00	16.98
ATOM	997	CB	ALA	134	26.367	41.491	16.023	1.00	21.48
ATOM	998	C	ALA	134	26.663	39.810	14.161	1.00	19.01
ATOM	999	O	ALA	134	25.617	39.221	13.857	1.00	16.42
ATOM	1000	N	LEU	135	27.861	39.224	14.138	1.00	16.43
ATOM	1001	CA	LEU	135	28.070	37.818	13.794	1.00	14.07

ATOM	1002	CB	LEU	135	29.161	37.675	12.723	1.00	12.97
ATOM	1003	CG	LEU	135	29.583	36.245	12.309	1.00	11.23
ATOM	1004	CD1	LEU	135	28.410	35.475	11.699	1.00	6.75
ATOM	1005	CD2	LEU	135	30.737	36.289	11.307	1.00	13.13
ATOM	1006	C	LEU	135	28.489	37.099	15.062	1.00	16.13
ATOM	1007	O	LEU	135	29.545	37.392	15.629	1.00	18.89
ATOM	1008	N	VAL	136	27.604	36.235	15.561	1.00	14.63
ATOM	1009	CA	VAL	136	27.844	35.456	16.769	1.00	12.33
ATOM	1010	CB	VAL	136	26.641	35.579	17.757	1.00	9.61
ATOM	1011	CG1	VAL	136	26.942	34.898	19.084	1.00	7.27
ATOM	1012	CG2	VAL	136	26.313	37.041	18.001	1.00	7.34
ATOM	1013	C	VAL	136	28.111	33.982	16.350	1.00	14.45
ATOM	1014	O	VAL	136	27.312	33.344	15.654	1.00	9.55
ATOM	1015	N	VAL	137	29.271	33.471	16.745	1.00	17.20
ATOM	1016	CA	VAL	137	29.693	32.113	16.409	1.00	12.32
ATOM	1017	CB	VAL	137	31.014	32.159	15.589	1.00	12.38
ATOM	1018	CG1	VAL	137	31.696	30.801	15.552	1.00	11.20
ATOM	1019	CG2	VAL	137	30.730	32.623	14.174	1.00	6.71
ATOM	1020	C	VAL	137	29.915	31.335	17.683	1.00	13.55
ATOM	1021	O	VAL	137	30.399	31.882	18.668	1.00	15.28
ATOM	1022	N	GLY	138	29.432	30.098	17.709	1.00	17.14
ATOM	1023	CA	GLY	138	29.650	29.217	18.859	1.00	16.08
ATOM	1024	C	GLY	138	30.383	28.079	18.163	1.00	16.01
ATOM	1025	O	GLY	138	29.827	27.521	17.224	1.00	12.20
ATOM	1026	N	SER	139	31.618	27.761	18.550	1.00	15.62
ATOM	1027	CA	SER	139	32.374	26.715	17.833	1.00	16.80
ATOM	1028	CB	SER	139	33.124	27.344	16.643	1.00	12.48
ATOM	1029	OG	SER	139	33.907	26.430	15.885	1.00	4.87
ATOM	1030	C	SER	139	33.342	26.012	18.769	1.00	18.91
ATOM	1031	O	SER	139	34.027	26.657	19.555	1.00	18.89
ATOM	1032	N	ASP	140	33.376	24.686	18.721	1.00	17.91
ATOM	1033	CA	ASP	140	34.262	23.934	19.592	1.00	17.27
ATOM	1034	CB	ASP	140	33.636	23.741	20.967	1.00	12.28
ATOM	1035	CG	ASP	140	33.926	24.881	21.902	1.00	13.97
ATOM	1036	OD1	ASP	140	35.110	25.244	22.041	1.00	13.18
ATOM	1037	OD2	ASP	140	32.983	25.396	22.525	1.00	13.03
ATOM	1038	C	ASP	140	34.630	22.576	19.031	1.00	19.90
ATOM	1039	O	ASP	140	33.902	22.011	18.212	1.00	20.05
ATOM	1040	N	VAL	141	35.791	22.082	19.456	1.00	15.73
ATOM	1041	CA	VAL	141	36.284	20.774	19.051	1.00	15.62
ATOM	1042	CB	VAL	141	37.595	20.857	18.197	1.00	18.32
ATOM	1043	CG1	VAL	141	37.313	21.470	16.846	1.00	16.73

ATOM	1044	CG2	VAL	141	38.695	21.664	18.930	1.00	14.55
ATOM	1045	C	VAL	141	36.587	20.055	20.355	1.00	12.09
ATOM	1046	O	VAL	141	37.696	19.570	20.546	1.00	15.19
ATOM	1047	N	LEU	142	35.611	19.985	21.261	1.00	10.22
ATOM	1048	CA	LEU	142	35.860	19.347	22.539	1.00	13.06
ATOM	1049	CB	LEU	142	34.735	19.597	23.555	1.00	12.36
ATOM	1050	CG	LEU	142	34.583	20.999	24.171	1.00	11.62
ATOM	1051	CD1	LEU	142	33.937	20.919	25.543	1.00	5.06
ATOM	1052	CD2	LEU	142	35.940	21.651	24.300	1.00	10.88
ATOM	1053	C	LEU	142	36.175	17.851	22.433	1.00	13.55
ATOM	1054	O	LEU	142	36.786	17.299	23.322	1.00	19.07
ATOM	1055	N	ALA	143	35.755	17.193	21.363	1.00	15.09
ATOM	1056	CA	ALA	143	36.062	15.775	21.224	1.00	15.68
ATOM	1057	CB	ALA	143	35.601	15.267	19.863	1.00	13.86
ATOM	1058	C	ALA	143	37.583	15.655	21.352	1.00	17.46
ATOM	1059	O	ALA	143	38.091	14.978	22.250	1.00	18.13
ATOM	1060	N	ARG	144	38.262	16.492	20.571	1.00	18.08
ATOM	1061	CA	ARG	144	39.724	16.590	20.479	1.00	15.33
ATOM	1062	CB	ARG	144	40.059	17.629	19.390	1.00	20.15
ATOM	1063	CG	ARG	144	41.515	17.827	19.037	1.00	17.24
ATOM	1064	CD	ARG	144	41.665	18.723	17.807	1.00	11.11
ATOM	1065	NE	ARG	144	41.472	18.005	16.548	1.00	15.83
ATOM	1066	CZ	ARG	144	41.066	18.573	15.411	1.00	13.20
ATOM	1067	NH1	ARG	144	40.913	17.854	14.310	1.00	11.02
ATOM	1068	NH2	ARG	144	40.794	19.866	15.382	1.00	18.72
ATOM	1069	C	ARG	144	40.439	16.903	21.790	1.00	13.02
ATOM	1070	O	ARG	144	41.630	16.643	21.909	1.00	14.58
ATOM	1071	N	THR	145	39.711	17.433	22.776	1.00	11.98
ATOM	1072	CA	THR	145	40.274	17.774	24.096	1.00	11.11
ATOM	1073	CB	THR	145	39.608	19.040	24.715	1.00	12.86
ATOM	1074	OG1	THR	145	38.274	18.729	25.149	1.00	12.87
ATOM	1075	CG2	THR	145	39.567	20.166	23.724	1.00	7.49
ATOM	1076	C	THR	145	40.047	16.661	25.105	1.00	8.68
ATOM	1077	O	THR	145	40.435	16.751	26.264	1.00	9.54
ATOM	1078	N	CYS	146	39.309	15.652	24.688	1.00	12.62
ATOM	1079	CA	CYS	146	39.000	14.565	25.577	1.00	13.84
ATOM	1080	CB	CYS	146	37.727	13.857	25.125	1.00	14.26
ATOM	1081	SG	CYS	146	36.246	14.770	25.516	1.00	15.81
ATOM	1082	C	CYS	146	40.096	13.550	25.640	1.00	15.07
ATOM	1083	O	CYS	146	40.744	13.273	24.655	1.00	16.45
ATOM	1084	N	ASP	147	40.343	13.065	26.842	1.00	16.73
ATOM	1085	CA	ASP	147	41.295	12.002	27.067	1.00	17.39

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ATOM	1086	CB	ASP	147	41.376	11.762	28.569	1.00	12.16
ATOM	1087	CG	ASP	147	42.270	10.605	28.931	1.00	20.06
ATOM	1088	OD1	ASP	147	42.519	10.429	30.148	1.00	15.26
ATOM	1089	OD2	ASP	147	42.714	9.875	28.012	1.00	18.16
ATOM	1090	C	ASP	147	40.585	10.825	26.367	1.00	18.17
ATOM	1091	O	ASP	147	39.598	10.295	26.895	1.00	16.37
ATOM	1092	N	PRO	148	41.088	10.393	25.192	1.00	18.34
ATOM	1093	CD	PRO	148	42.393	10.757	24.604	1.00	20.49
ATOM	1094	CA	PRO	148	40.482	9.289	24.435	1.00	20.17
ATOM	1095	CB	PRO	148	41.392	9.172	23.208	1.00	16.86
ATOM	1096	CG	PRO	148	42.722	9.528	23.774	1.00	21.69
ATOM	1097	C	PRO	148	40.307	7.958	25.182	1.00	21.05
ATOM	1098	O	PRO	148	39.496	7.132	24.775	1.00	23.07
ATOM	1099	N	THR	149	41.049	7.742	26.262	1.00	18.93
ATOM	1100	CA	THR	149	40.884	6.508	27.004	1.00	21.04
ATOM	1101	CB	THR	149	42.243	5.941	27.489	1.00	23.55
ATOM	1102	OG1	THR	149	42.925	6.913	28.300	1.00	29.23
ATOM	1103	CG2	THR	149	43.119	5.553	26.299	1.00	21.21
ATOM	1104	C	THR	149	39.942	6.706	28.187	1.00	21.98
ATOM	1105	O	THR	149	39.854	5.858	29.072	1.00	23.84
ATOM	1106	N	ASP	150	39.228	7.825	28.212	1.00	23.37
ATOM	1107	CA	ASP	150	38.310	8.102	29.314	1.00	21.80
ATOM	1108	CB	ASP	150	38.493	9.539	29.786	1.00	23.39
ATOM	1109	CG	ASP	150	37.720	9.834	31.040	1.00	23.15
ATOM	1110	OD1	ASP	150	38.048	9.244	32.086	1.00	26.17
ATOM	1111	OD2	ASP	150	36.781	10.656	30.987	1.00	28.36
ATOM	1112	C	ASP	150	36.872	7.886	28.843	1.00	23.95
ATOM	1113	O	ASP	150	36.299	8.756	28.174	1.00	22.20
ATOM	1114	N	ARG	151	36.295	6.724	29.164	1.00	23.03
ATOM	1115	CA	ARG	151	34.919	6.417	28.730	1.00	23.11
ATOM	1116	CB	ARG	151	34.470	5.004	29.175	1.00	16.86
ATOM	1117	CG	ARG	151	34.348	4.774	30.666	1.00	15.32
ATOM	1118	CD	ARG	151	33.926	3.335	30.928	1.00	7.13
ATOM	1119	NE	ARG	151	33.779	3.086	32.349	1.00	10.71
ATOM	1120	CZ	ARG	151	33.378	1.927	32.869	1.00	3.91
ATOM	1121	NH1	ARG	151	33.268	1.783	34.179	1.00	4.61
ATOM	1122	NH2	ARG	151	33.078	0.930	32.071	1.00	10.10
ATOM	1123	C	ARG	151	33.873	7.478	29.120	1.00	17.49
ATOM	1124	O	ARG	151	33.012	7.828	28.317	1.00	17.71
ATOM	1125	N	GLY	152	34.016	8.044	30.309	1.00	17.52
ATOM	1126	CA	GLY	152	33.070	9.045	30.776	1.00	16.37
ATOM	1127	C	GLY	152	33.062	10.401	30.082	1.00	15.84

ATOM	1128	O	GLY	152	32.246	11.248	30.439	1.00	21.56
ATOM	1129	N	THR	153	33.951	10.629	29.117	1.00	14.29
ATOM	1130	CA	THR	153	33.987	11.902	28.408	1.00	11.83
ATOM	1131	CB	THR	153	35.191	12.800	28.827	1.00	14.64
ATOM	1132	OG1	THR	153	36.420	12.102	28.645	1.00	17.97
ATOM	1133	CG2	THR	153	35.081	13.208	30.273	1.00	13.16
ATOM	1134	C	THR	153	33.927	11.784	26.899	1.00	10.59
ATOM	1135	O	THR	153	33.111	12.464	26.289	1.00	10.67
ATOM	1136	N	ILE	154	34.697	10.879	26.281	1.00	10.80
ATOM	1137	CA	ILE	154	34.655	10.763	24.809	1.00	9.73
ATOM	1138	CB	ILE	154	35.706	9.769	24.178	1.00	13.69
ATOM	1139	CG2	ILE	154	36.615	10.474	23.139	1.00	12.61
ATOM	1140	CG1	ILE	154	36.414	8.953	25.251	1.00	13.84
ATOM	1141	CD1	ILE	154	35.689	7.683	25.596	1.00	12.50
ATOM	1142	C	ILE	154	33.302	10.313	24.301	1.00	5.77
ATOM	1143	O	ILE	154	33.058	10.351	23.105	1.00	7.85
ATOM	1144	N	ILE	155	32.435	9.824	25.183	1.00	7.71
ATOM	1145	CA	ILE	155	31.118	9.388	24.704	1.00	12.55
ATOM	1146	CB	ILE	155	30.381	8.406	25.691	1.00	11.77
ATOM	1147	CG2	ILE	155	31.188	7.098	25.889	1.00	11.90
ATOM	1148	CG1	ILE	155	30.150	9.074	27.040	1.00	12.15
ATOM	1149	CD1	ILE	155	29.213	8.329	27.927	1.00	11.79
ATOM	1150	C	ILE	155	30.228	10.603	24.421	1.00	10.55
ATOM	1151	O	ILE	155	29.550	10.662	23.425	1.00	14.21
ATOM	1152	N	ILE	156	30.317	11.606	25.274	1.00	15.15
ATOM	1153	CA	ILE	156	29.500	12.813	25.161	1.00	13.87
ATOM	1154	CB	ILE	156	29.507	13.538	26.508	1.00	18.45
ATOM	1155	CG2	ILE	156	28.824	14.899	26.405	1.00	23.09
ATOM	1156	CG1	ILE	156	28.863	12.666	27.575	1.00	15.34
ATOM	1157	CD1	ILE	156	29.781	12.364	28.695	1.00	19.30
ATOM	1158	C	ILE	156	29.882	13.830	24.082	1.00	13.98
ATOM	1159	O	ILE	156	29.024	14.316	23.333	1.00	9.76
ATOM	1160	N	PHE	157	31.181	14.105	23.978	1.00	10.77
ATOM	1161	CA	PHE	157	31.658	15.149	23.098	1.00	7.33
ATOM	1162	CB	PHE	157	32.885	15.844	23.725	1.00	4.54
ATOM	1163	CG	PHE	157	32.612	16.455	25.079	1.00	7.66
ATOM	1164	CD1	PHE	157	32.982	15.792	26.243	1.00	3.98
ATOM	1165	CD2	PHE	157	31.931	17.674	25.195	1.00	5.65
ATOM	1166	CE1	PHE	157	32.678	16.317	27.516	1.00	9.88
ATOM	1167	CE2	PHE	157	31.613	18.226	26.465	1.00	4.05
ATOM	1168	CZ	PHE	157	31.980	17.556	27.627	1.00	6.80
ATOM	1169	C	PHE	157	31.846	14.899	21.625	1.00	10.70

ATOM	1170	O	PHE	157	32.377	13.867	21.204	1.00	13.03
ATOM	1171	N	GLY	158	31.359	15.876	20.863	1.00	5.51
ATOM	1172	CA	GLY	158	31.436	15.912	19.417	1.00	6.26
ATOM	1173	C	GLY	158	31.937	17.315	19.079	1.00	5.33
ATOM	1174	O	GLY	158	32.137	18.141	19.978	1.00	2.00
ATOM	1175	N	ASP	159	32.187	17.576	17.802	1.00	7.89
ATOM	1176	CA	ASP	159	32.685	18.872	17.363	1.00	6.53
ATOM	1177	CB	ASP	159	34.024	18.765	16.616	1.00	5.64
ATOM	1178	CG	ASP	159	35.056	17.970	17.348	1.00	2.00
ATOM	1179	OD1	ASP	159	35.146	18.022	18.584	1.00	6.00
ATOM	1180	OD2	ASP	159	35.811	17.292	16.651	1.00	18.76
ATOM	1181	C	ASP	159	31.714	19.464	16.367	1.00	11.51
ATOM	1182	O	ASP	159	31.052	18.735	15.624	1.00	12.91
ATOM	1183	N	GLY	160	31.676	20.791	16.322	1.00	10.96
ATOM	1184	CA	GLY	160	30.818	21.460	15.368	1.00	12.58
ATOM	1185	C	GLY	160	30.775	22.948	15.634	1.00	10.14
ATOM	1186	O	GLY	160	31.263	23.426	16.675	1.00	9.89
ATOM	1187	N	ALA	161	30.158	23.662	14.704	1.00	9.72
ATOM	1188	CA	ALA	161	29.996	25.108	14.811	1.00	13.62
ATOM	1189	CB	ALA	161	31.018	25.823	13.928	1.00	9.81
ATOM	1190	C	ALA	161	28.590	25.555	14.397	1.00	12.71
ATOM	1191	O	ALA	161	28.021	25.027	13.445	1.00	11.20
ATOM	1192	N	GLY	162	28.081	26.562	15.105	1.00	12.11
ATOM	1193	CA	GLY	162	26.801	27.173	14.807	1.00	13.86
ATOM	1194	C	GLY	162	27.076	28.683	14.690	1.00	16.19
ATOM	1195	O	GLY	162	28.119	29.174	15.137	1.00	13.45
ATOM	1196	N	ALA	163	26.170	29.432	14.077	1.00	12.66
ATOM	1197	CA	ALA	163	26.380	30.871	13.942	1.00	14.36
ATOM	1198	CB	ALA	163	27.399	31.162	12.852	1.00	4.54
ATOM	1199	C	ALA	163	25.064	31.559	13.651	1.00	12.15
ATOM	1200	O	ALA	163	24.183	30.965	13.028	1.00	14.53
ATOM	1201	N	ALA	164	24.948	32.806	14.090	1.00	12.22
ATOM	1202	CA	ALA	164	23.739	33.609	13.932	1.00	11.61
ATOM	1203	CB	ALA	164	22.899	33.515	15.213	1.00	3.11
ATOM	1204	C	ALA	164	24.102	35.087	13.668	1.00	14.73
ATOM	1205	O	ALA	164	25.002	35.618	14.334	1.00	9.29
ATOM	1206	N	VAL	165	23.509	35.704	12.640	1.00	11.74
ATOM	1207	CA	VAL	165	23.778	37.118	12.415	1.00	15.12
ATOM	1208	CB	VAL	165	24.220	37.508	10.975	1.00	14.61
ATOM	1209	CG1	VAL	165	24.404	36.309	10.127	1.00	13.37
ATOM	1210	CG2	VAL	165	23.290	38.548	10.360	1.00	11.73
ATOM	1211	C	VAL	165	22.578	37.925	12.900	1.00	19.15

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ATOM	1212	O	VAL	165	21.410	37.628	12.570	1.00	18.44
ATOM	1213	N	LEU	166	22.896	38.831	13.817	1.00	19.83
ATOM	1214	CA	LEU	166	21.961	39.736	14.472	1.00	20.44
ATOM	1215	CB	LEU	166	22.416	39.914	15.908	1.00	17.50
ATOM	1216	CG	LEU	166	22.261	38.707	16.846	1.00	15.46
ATOM	1217	CD1	LEU	166	22.784	37.404	16.248	1.00	15.60
ATOM	1218	CD2	LEU	166	22.972	39.027	18.153	1.00	15.94
ATOM	1219	C	LEU	166	21.913	41.091	13.757	1.00	23.50
ATOM	1220	O	LEU	166	22.952	41.574	13.275	1.00	22.40
ATOM	1221	N	ALA	167	20.715	41.684	13.660	1.00	21.95
ATOM	1222	CA	ALA	167	20.537	42.978	12.997	1.00	17.49
ATOM	1223	CB	ALA	167	19.794	42.807	11.659	1.00	17.41
ATOM	1224	C	ALA	167	19.799	43.976	13.900	1.00	17.89
ATOM	1225	O	ALA	167	19.104	43.577	14.854	1.00	15.97
ATOM	1226	N	ALA	168	20.042	45.273	13.663	1.00	15.11
ATOM	1227	CA	ALA	168	19.396	46.345	14.415	1.00	12.14
ATOM	1228	CB	ALA	168	19.950	47.675	13.983	1.00	13.45
ATOM	1229	C	ALA	168	17.938	46.225	14.004	1.00	5.74
ATOM	1230	O	ALA	168	17.651	46.230	12.820	1.00	12.21
ATOM	1231	N	SER	169	17.029	46.133	14.962	1.00	10.10
ATOM	1232	CA	SER	169	15.612	45.935	14.635	1.00	10.67
ATOM	1233	CB	SER	169	15.284	44.433	14.707	1.00	8.86
ATOM	1234	OG	SER	169	15.817	43.789	13.568	1.00	6.84
ATOM	1235	C	SER	169	14.587	46.739	15.425	1.00	7.12
ATOM	1236	O	SER	169	14.752	47.017	16.604	1.00	10.19
ATOM	1237	N	GLU	170	13.481	47.043	14.770	1.00	9.18
ATOM	1238	CA	GLU	170	12.439	47.863	15.373	1.00	11.33
ATOM	1239	CB	GLU	170	11.486	48.335	14.285	1.00	12.47
ATOM	1240	CG	GLU	170	12.180	49.191	13.232	1.00	12.76
ATOM	1241	CD	GLU	170	12.654	50.539	13.785	1.00	14.38
ATOM	1242	OE1	GLU	170	13.523	50.588	14.688	1.00	19.82
ATOM	1243	OE2	GLU	170	12.147	51.563	13.310	1.00	21.27
ATOM	1244	C	GLU	170	11.667	47.293	16.540	1.00	12.92
ATOM	1245	O	GLU	170	11.099	48.042	17.335	1.00	15.82
ATOM	1246	N	GLU	171	11.639	45.974	16.655	1.00	12.41
ATOM	1247	CA	GLU	171	10.900	45.325	17.724	1.00	12.13
ATOM	1248	CB	GLU	171	9.508	44.953	17.234	1.00	13.53
ATOM	1249	CG	GLU	171	9.483	43.797	16.277	1.00	17.84
ATOM	1250	CD	GLU	171	8.073	43.354	15.891	1.00	21.87
ATOM	1251	OE1	GLU	171	7.966	42.639	14.873	1.00	22.60
ATOM	1252	OE2	GLU	171	7.089	43.710	16.580	1.00	18.89
ATOM	1253	C	GLU	171	11.637	44.063	18.146	1.00	13.85

ATOM	1254	O	GLU	171	12.413	43.503	17.366	1.00	6.88
ATOM	1255	N	PRO	172	11.377	43.583	19.376	1.00	16.97
ATOM	1256	CD	PRO	172	10.557	44.171	20.449	1.00	15.71
ATOM	1257	CA	PRO	172	12.038	42.384	19.868	1.00	20.70
ATOM	1258	CB	PRO	172	11.371	42.141	21.210	1.00	20.51
ATOM	1259	CG	PRO	172	11.090	43.469	21.674	1.00	21.42
ATOM	1260	C	PRO	172	12.061	41.112	19.052	1.00	22.31
ATOM	1261	O	PRO	172	11.071	40.651	18.479	1.00	23.30
ATOM	1262	N	GLY	173	13.294	40.657	18.946	1.00	23.48
ATOM	1263	CA	GLY	173	13.658	39.408	18.356	1.00	18.40
ATOM	1264	C	GLY	173	14.095	38.992	19.748	1.00	15.17
ATOM	1265	O	GLY	173	13.283	38.486	20.513	1.00	12.22
ATOM	1266	N	ILE	174	15.289	39.409	20.172	1.00	12.76
ATOM	1267	CA	ILE	174	15.734	39.054	21.509	1.00	10.89
ATOM	1268	CB	ILE	174	17.257	39.197	21.727	1.00	6.98
ATOM	1269	CG2	ILE	174	17.600	38.779	23.149	1.00	6.58
ATOM	1270	CG1	ILE	174	18.036	38.356	20.718	1.00	7.86
ATOM	1271	CD1	ILE	174	19.548	38.461	20.891	1.00	6.20
ATOM	1272	C	ILE	174	15.024	39.957	22.504	1.00	15.61
ATOM	1273	O	ILE	174	15.313	41.150	22.617	1.00	15.57
ATOM	1274	N	ILE	175	14.126	39.357	23.264	1.00	15.95
ATOM	1275	CA	ILE	175	13.343	40.071	24.248	1.00	12.47
ATOM	1276	CB	ILE	175	12.037	39.263	24.563	1.00	10.21
ATOM	1277	CG2	ILE	175	11.422	39.647	25.888	1.00	6.64
ATOM	1278	CG1	ILE	175	11.062	39.363	23.403	1.00	8.14
ATOM	1279	CD1	ILE	175	9.890	38.405	23.510	1.00	14.53
ATOM	1280	C	ILE	175	14.116	40.272	25.527	1.00	15.15
ATOM	1281	O	ILE	175	14.132	41.373	26.075	1.00	15.83
ATOM	1282	N	SER	176	14.838	39.240	25.951	1.00	14.63
ATOM	1283	CA	SER	176	15.536	39.265	27.227	1.00	11.68
ATOM	1284	CB	SER	176	14.554	38.665	28.225	1.00	11.66
ATOM	1285	OG	SER	176	14.876	38.964	29.551	1.00	13.99
ATOM	1286	C	SER	176	16.800	38.386	27.178	1.00	13.88
ATOM	1287	O	SER	176	16.940	37.571	26.269	1.00	14.55
ATOM	1288	N	THR	177	17.685	38.531	28.171	1.00	12.52
ATOM	1289	CA	THR	177	18.924	37.746	28.267	1.00	11.75
ATOM	1290	CB	THR	177	20.043	38.344	27.385	1.00	12.90
ATOM	1291	OG1	THR	177	20.026	37.727	26.094	1.00	14.09
ATOM	1292	CG2	THR	177	21.371	38.144	28.000	1.00	16.20
ATOM	1293	C	THR	177	19.356	37.695	29.725	1.00	12.04
ATOM	1294	O	THR	177	19.284	38.705	30.420	1.00	14.09
ATOM	1295	N	HIS	178	19.718	36.509	30.214	1.00	9.43

ATOM	1296	CA	HIS	178	20.119	36.345	31.608	1.00	9.72
ATOM	1297	CB	HIS	178	18.974	35.718	32.429	1.00	8.94
ATOM	1298	CG	HIS	178	17.680	36.453	32.264	1.00	10.59
ATOM	1299	CD2	HIS	178	17.064	37.364	33.049	1.00	7.83
ATOM	1300	ND1	HIS	178	16.968	36.422	31.082	1.00	9.67
ATOM	1301	CE1	HIS	178	15.979	37.291	31.142	1.00	10.34
ATOM	1302	NE2	HIS	178	16.015	37.878	32.325	1.00	11.38
ATOM	1303	C	HIS	178	21.378	35.505	31.675	1.00	12.46
ATOM	1304	O	HIS	178	21.501	34.531	30.933	1.00	12.47
ATOM	1305	N	LEU	179	22.320	35.906	32.529	1.00	11.13
ATOM	1306	CA	LEU	179	23.596	35.194	32.646	1.00	13.18
ATOM	1307	CB	LEU	179	24.694	35.893	31.822	1.00	14.11
ATOM	1308	CG	LEU	179	24.605	36.287	30.337	1.00	17.53
ATOM	1309	CD1	LEU	179	25.845	37.093	29.964	1.00	13.29
ATOM	1310	CD2	LEU	179	24.487	35.080	29.425	1.00	15.92
ATOM	1311	C	LEU	179	24.044	35.089	34.087	1.00	14.14
ATOM	1312	O	LEU	179	23.952	36.064	34.863	1.00	12.35
ATOM	1313	N	HIS	180	24.485	33.887	34.465	1.00	11.83
ATOM	1314	CA	HIS	180	24.968	33.627	35.810	1.00	9.27
ATOM	1315	CB	HIS	180	23.906	32.937	36.654	1.00	10.23
ATOM	1316	CG	HIS	180	22.746	33.823	36.962	1.00	11.32
ATOM	1317	CD2	HIS	180	22.553	34.722	37.952	1.00	8.38
ATOM	1318	ND1	HIS	180	21.666	33.945	36.116	1.00	12.35
ATOM	1319	CE1	HIS	180	20.865	34.893	36.565	1.00	10.48
ATOM	1320	NE2	HIS	180	21.381	35.380	37.678	1.00	15.02
ATOM	1321	C	HIS	180	26.239	32.801	35.825	1.00	8.53
ATOM	1322	O	HIS	180	26.647	32.231	34.814	1.00	9.85
ATOM	1323	N	ALA	181	26.842	32.698	36.991	1.00	6.96
ATOM	1324	CA	ALA	181	28.060	31.940	37.105	1.00	7.01
ATOM	1325	CB	ALA	181	29.238	32.688	36.408	1.00	2.00
ATOM	1326	C	ALA	181	28.347	31.725	38.557	1.00	9.60
ATOM	1327	O	ALA	181	27.882	32.462	39.428	1.00	12.99
ATOM	1328	N	ASP	182	29.020	30.627	38.841	1.00	12.91
ATOM	1329	CA	ASP	182	29.403	30.329	40.202	1.00	14.08
ATOM	1330	CB	ASP	182	28.345	29.502	40.924	1.00	13.03
ATOM	1331	CG	ASP	182	28.647	29.349	42.389	1.00	12.87
ATOM	1332	OD1	ASP	182	29.781	29.668	42.808	1.00	14.81
ATOM	1333	OD2	ASP	182	27.754	28.922	43.146	1.00	19.19
ATOM	1334	C	ASP	182	30.690	29.542	40.065	1.00	16.06
ATOM	1335	O	ASP	182	30.676	28.333	39.840	1.00	15.02
ATOM	1336	N	GLY	183	31.800	30.266	40.155	1.00	16.15
ATOM	1337	CA	GLY	183	33.114	29.675	40.032	1.00	15.23

ATOM	1338	C	GLY	183	33.476	28.742	41.161	1.00	14.29
ATOM	1339	O	GLY	183	34.540	28.133	41.107	1.00	16.69
ATOM	1340	N	SER	184	32.647	28.626	42.196	1.00	11.66
ATOM	1341	CA	SER	184	32.966	27.699	43.287	1.00	13.17
ATOM	1342	CB	SER	184	32.048	27.901	44.489	1.00	12.70
ATOM	1343	OG	SER	184	30.718	27.507	44.180	1.00	14.66
ATOM	1344	C	SER	184	32.908	26.228	42.863	1.00	14.14
ATOM	1345	O	SER	184	33.296	25.344	43.626	1.00	16.33
ATOM	1346	N	TYR	185	32.420	25.972	41.658	1.00	13.34
ATOM	1347	CA	TYR	185	32.318	24.623	41.125	1.00	17.24
ATOM	1348	CB	TYR	185	30.938	24.411	40.515	1.00	21.08
ATOM	1349	CG	TYR	185	29.743	24.560	41.429	1.00	23.18
ATOM	1350	CD1	TYR	185	29.450	23.599	42.384	1.00	19.47
ATOM	1351	CE1	TYR	185	28.286	23.665	43.126	1.00	26.31
ATOM	1352	CD2	TYR	185	28.835	25.609	41.248	1.00	25.89
ATOM	1353	CE2	TYR	185	27.663	25.680	41.982	1.00	25.77
ATOM	1354	CZ	TYR	185	27.394	24.706	42.917	1.00	27.34
ATOM	1355	OH	TYR	185	26.219	24.754	43.632	1.00	31.36
ATOM	1356	C	TYR	185	33.343	24.432	40.003	1.00	17.13
ATOM	1357	O	TYR	185	33.219	23.518	39.175	1.00	18.83
ATOM	1358	N	GLY	186	34.343	25.298	39.950	1.00	16.88
ATOM	1359	CA	GLY	186	35.343	25.186	38.899	1.00	15.86
ATOM	1360	C	GLY	186	36.053	23.843	38.767	1.00	14.47
ATOM	1361	O	GLY	186	36.542	23.507	37.687	1.00	16.07
ATOM	1362	N	GLU	187	36.125	23.094	39.864	1.00	18.62
ATOM	1363	CA	GLU	187	36.774	21.783	39.885	1.00	19.37
ATOM	1364	CB	GLU	187	36.959	21.317	41.328	1.00	22.61
ATOM	1365	CG	GLU	187	37.631	22.310	42.259	1.00	24.86
ATOM	1366	CD	GLU	187	39.135	22.345	42.122	1.00	27.51
ATOM	1367	OE1	GLU	187	39.655	22.176	40.992	1.00	31.77
ATOM	1368	OE2	GLU	187	39.799	22.564	43.160	1.00	31.29
ATOM	1369	C	GLU	187	35.957	20.714	39.150	1.00	22.03
ATOM	1370	O	GLU	187	36.514	19.843	38.487	1.00	22.92
ATOM	1371	N	LEU	188	34.634	20.789	39.266	1.00	19.69
ATOM	1372	CA	LEU	188	33.759	19.794	38.659	1.00	17.71
ATOM	1373	CB	LEU	188	32.317	20.017	39.100	1.00	20.66
ATOM	1374	CG	LEU	188	32.064	19.899	40.597	1.00	18.39
ATOM	1375	CD1	LEU	188	30.618	20.276	40.899	1.00	19.96
ATOM	1376	CD2	LEU	188	32.367	18.475	41.065	1.00	21.04
ATOM	1377	C	LEU	188	33.818	19.630	37.159	1.00	18.04
ATOM	1378	O	LEU	188	33.465	18.571	36.640	1.00	17.13
ATOM	1379	N	LEU	189	34.231	20.663	36.441	1.00	15.69

ATOM	1380	CA	LEU	189	34.309	20.542	34.989	1.00	15.11
ATOM	1381	CB	LEU	189	32.983	20.982	34.350	1.00	10.07
ATOM	1382	CG	LEU	189	32.807	20.922	32.844	1.00	7.51
ATOM	1383	CD1	LEU	189	33.311	19.593	32.263	1.00	10.35
ATOM	1384	CD2	LEU	189	31.343	21.142	32.523	1.00	7.61
ATOM	1385	C	LEU	189	35.464	21.418	34.538	1.00	15.40
ATOM	1386	O	LEU	189	35.452	22.612	34.812	1.00	16.51
ATOM	1387	N	THR	190	36.442	20.838	33.837	1.00	13.30
ATOM	1388	CA	THR	190	37.621	21.587	33.430	1.00	13.67
ATOM	1389	CB	THR	190	38.768	21.473	34.473	1.00	16.85
ATOM	1390	OG1	THR	190	39.453	20.222	34.303	1.00	20.34
ATOM	1391	CG2	THR	190	38.254	21.559	35.890	1.00	15.10
ATOM	1392	C	THR	190	38.278	21.174	32.141	1.00	12.47
ATOM	1393	O	THR	190	38.189	20.033	31.702	1.00	11.40
ATOM	1394	N	LEU	191	38.962	22.138	31.550	1.00	11.59
ATOM	1395	CA	LEU	191	39.755	21.936	30.364	1.00	12.41
ATOM	1396	CB	LEU	191	39.052	22.404	29.099	1.00	10.17
ATOM	1397	CG	LEU	191	39.867	22.213	27.827	1.00	8.59
ATOM	1398	CD1	LEU	191	40.506	20.834	27.786	1.00	13.52
ATOM	1399	CD2	LEU	191	38.973	22.387	26.652	1.00	8.21
ATOM	1400	C	LEU	191	41.012	22.763	30.644	1.00	17.15
ATOM	1401	O	LEU	191	40.968	24.008	30.721	1.00	11.90
ATOM	1402	N	PRO	192	42.094	22.073	31.030	1.00	18.22
ATOM	1403	CD	PRO	192	42.126	20.707	31.576	1.00	19.04
ATOM	1404	CA	PRO	192	43.343	22.772	31.317	1.00	16.79
ATOM	1405	CB	PRO	192	44.157	21.708	32.059	1.00	18.25
ATOM	1406	CG	PRO	192	43.088	20.853	32.730	1.00	16.79
ATOM	1407	C	PRO	192	44.030	23.208	30.031	1.00	14.67
ATOM	1408	O	PRO	192	43.802	22.642	28.959	1.00	14.65
ATOM	1409	N	ASN	193	44.764	24.311	30.127	1.00	15.12
ATOM	1410	CA	ASN	193	45.544	24.828	28.998	1.00	16.42
ATOM	1411	CB	ASN	193	45.708	26.353	29.094	1.00	14.86
ATOM	1412	CG	ASN	193	44.519	27.106	28.558	1.00	15.33
ATOM	1413	OD1	ASN	193	44.232	28.232	28.979	1.00	19.78
ATOM	1414	ND2	ASN	193	43.823	26.502	27.630	1.00	12.52
ATOM	1415	C	ASN	193	46.912	24.176	29.150	1.00	11.45
ATOM	1416	O	ASN	193	47.192	23.564	30.179	1.00	15.49
ATOM	1417	N	ALA	194	47.775	24.361	28.161	1.00	14.79
ATOM	1418	CA	ALA	194	49.123	23.806	28.208	1.00	12.83
ATOM	1419	CB	ALA	194	49.897	24.222	26.996	1.00	13.73
ATOM	1420	C	ALA	194	49.769	24.364	29.439	1.00	14.86
ATOM	1421	O	ALA	194	49.723	25.571	29.668	1.00	13.31

ATOM	1422	N	ASP	195	50.262	23.496	30.308	1.00	19.05
ATOM	1423	CA	ASP	195	50.897	24.007	31.496	1.00	23.62
ATOM	1424	CB	ASP	195	51.023	22.955	32.588	1.00	19.94
ATOM	1425	CG	ASP	195	51.527	23.537	33.879	1.00	18.82
ATOM	1426	OD1	ASP	195	52.567	24.213	33.836	1.00	29.72
ATOM	1427	OD2	ASP	195	50.896	23.352	34.937	1.00	21.99
ATOM	1428	C	ASP	195	52.245	24.551	31.016	1.00	30.04
ATOM	1429	O	ASP	195	53.061	23.841	30.395	1.00	32.59
ATOM	1430	N	ARG	196	52.358	25.869	31.148	1.00	32.59
ATOM	1431	CA	ARG	196	53.523	26.627	30.727	1.00	33.77
ATOM	1432	CB	ARG	196	53.233	28.130	30.908	1.00	33.58
ATOM	1433	CG	ARG	196	52.130	28.695	29.980	1.00	23.25
ATOM	1434	CD	ARG	196	52.678	28.956	28.582	1.00	24.49
ATOM	1435	NE	ARG	196	51.688	28.896	27.516	1.00	11.00
ATOM	1436	CZ	ARG	196	51.979	29.020	26.223	1.00	14.59
ATOM	1437	NH1	ARG	196	51.030	28.929	25.310	1.00	14.18
ATOM	1438	NH2	ARG	196	53.213	29.305	25.837	1.00	17.72
ATOM	1439	C	ARG	196	54.782	26.183	31.478	1.00	33.69
ATOM	1440	O	ARG	196	55.811	25.911	30.857	1.00	34.92
ATOM	1441	N	VAL	197	54.690	26.087	32.800	1.00	34.40
ATOM	1442	CA	VAL	197	55.824	25.648	33.610	1.00	39.19
ATOM	1443	CB	VAL	197	55.739	26.200	35.067	1.00	42.31
ATOM	1444	CG1	VAL	197	54.339	26.025	35.642	1.00	42.27
ATOM	1445	CG2	VAL	197	56.786	25.517	35.960	1.00	44.69
ATOM	1446	C	VAL	197	56.004	24.113	33.625	1.00	40.71
ATOM	1447	O	VAL	197	57.042	23.592	33.191	1.00	40.27
ATOM	1448	N	ASN	198	55.015	23.405	34.169	1.00	38.70
ATOM	1449	CA	ASN	198	55.030	21.945	34.245	1.00	34.35
ATOM	1450	CB	ASN	198	54.354	21.481	35.538	1.00	37.11
ATOM	1451	CG	ASN	198	55.096	21.901	36.770	1.00	40.44
ATOM	1452	OD1	ASN	198	55.065	23.070	37.160	1.00	43.11
ATOM	1453	ND2	ASN	198	55.738	20.941	37.427	1.00	42.54
ATOM	1454	C	ASN	198	54.260	21.349	33.072	1.00	31.24
ATOM	1455	O	ASN	198	53.110	20.926	33.235	1.00	27.90
ATOM	1456	N	PRO	199	54.905	21.213	31.906	1.00	29.04
ATOM	1457	CD	PRO	199	56.328	21.450	31.622	1.00	29.56
ATOM	1458	CA	PRO	199	54.248	20.664	30.723	1.00	29.19
ATOM	1459	CB	PRO	199	55.259	20.959	29.624	1.00	29.79
ATOM	1460	CG	PRO	199	56.523	20.709	30.306	1.00	31.78
ATOM	1461	C	PRO	199	53.914	19.176	30.766	1.00	29.01
ATOM	1462	O	PRO	199	53.609	18.589	29.723	1.00	31.06
ATOM	1463	N	GLU	200	54.048	18.543	31.931	1.00	29.43

ATOM	1464	CA	GLU	200	53.720	17.125	32.045	1.00	29.23
ATOM	1465	CB	GLU	200	54.614	16.414	33.062	1.00	32.38
ATOM	1466	CG	GLU	200	54.402	16.843	34.525	1.00	34.85
ATOM	1467	CD	GLU	200	53.360	16.024	35.303	1.00	38.71
ATOM	1468	OE1	GLU	200	52.741	15.091	34.736	1.00	41.00
ATOM	1469	OE2	GLU	200	53.173	16.317	36.508	1.00	36.61
ATOM	1470	C	GLU	200	52.263	17.032	32.471	1.00	29.43
ATOM	1471	O	GLU	200	51.564	16.101	32.078	1.00	31.75
ATOM	1472	N	ASN	201	51.800	18.013	33.246	1.00	25.38
ATOM	1473	CA	ASN	201	50.415	18.032	33.711	1.00	23.65
ATOM	1474	CB	ASN	201	50.094	19.361	34.383	1.00	27.92
ATOM	1475	CG	ASN	201	50.986	19.637	35.562	1.00	31.01
ATOM	1476	OD1	ASN	201	51.981	18.947	35.765	1.00	33.25
ATOM	1477	ND2	ASN	201	50.647	20.653	36.345	1.00	31.05
ATOM	1478	C	ASN	201	49.469	17.811	32.549	1.00	21.14
ATOM	1479	O	ASN	201	49.689	18.320	31.443	1.00	15.25
ATOM	1480	N	SER	202	48.402	17.068	32.815	1.00	21.39
ATOM	1481	CA	SER	202	47.415	16.739	31.800	1.00	21.61
ATOM	1482	CB	SER	202	46.401	15.726	32.348	1.00	24.66
ATOM	1483	OG	SER	202	45.421	15.396	31.367	1.00	28.51
ATOM	1484	C	SER	202	46.681	17.954	31.263	1.00	19.31
ATOM	1485	O	SER	202	46.374	18.880	31.996	1.00	20.76
ATOM	1486	N	ILE	203	46.413	17.949	29.969	1.00	19.21
ATOM	1487	CA	ILE	203	45.697	19.060	29.381	1.00	19.67
ATOM	1488	CB	ILE	203	46.504	19.688	28.240	1.00	19.27
ATOM	1489	CG2	ILE	203	47.821	20.180	28.772	1.00	19.18
ATOM	1490	CG1	ILE	203	46.751	18.663	27.142	1.00	15.74
ATOM	1491	CD1	ILE	203	46.812	19.250	25.738	1.00	7.26
ATOM	1492	C	ILE	203	44.340	18.585	28.878	1.00	18.08
ATOM	1493	O	ILE	203	43.713	19.245	28.060	1.00	21.12
ATOM	1494	N	HIS	204	43.913	17.421	29.370	1.00	17.46
ATOM	1495	CA	HIS	204	42.639	16.806	28.990	1.00	13.82
ATOM	1496	CB	HIS	204	42.715	15.274	29.106	1.00	15.18
ATOM	1497	CG	HIS	204	43.425	14.608	27.968	1.00	11.42
ATOM	1498	CD2	HIS	204	43.410	14.861	26.637	1.00	15.03
ATOM	1499	ND1	HIS	204	44.245	13.514	28.141	1.00	11.04
ATOM	1500	CE1	HIS	204	44.703	13.117	26.967	1.00	12.39
ATOM	1501	NE2	HIS	204	44.211	13.917	26.037	1.00	16.91
ATOM	1502	C	HIS	204	41.448	17.290	29.815	1.00	10.23
ATOM	1503	O	HIS	204	41.557	17.539	31.027	1.00	8.10
ATOM	1504	N	LEU	205	40.306	17.390	29.143	1.00	13.16
ATOM	1505	CA	LEU	205	39.050	17.802	29.770	1.00	15.27

ATOM	1506	CB	LEU	205	37.963	17.874	28.694	1.00	12.62
ATOM	1507	CG	LEU	205	36.505	18.215	29.034	1.00	14.99
ATOM	1508	CD1	LEU	205	35.817	18.527	27.706	1.00	15.12
ATOM	1509	CD2	LEU	205	35.773	17.085	29.762	1.00	11.51
ATOM	1510	C	LEU	205	38.658	16.793	30.846	1.00	15.81
ATOM	1511	O	LEU	205	38.675	15.588	30.594	1.00	20.20
ATOM	1512	N	THR	206	38.383	17.262	32.058	1.00	16.52
ATOM	1513	CA	THR	206	37.971	16.381	33.133	1.00	14.26
ATOM	1514	CB	THR	206	38.897	16.456	34.367	1.00	15.75
ATOM	1515	OG1	THR	206	38.528	17.561	35.207	1.00	18.89
ATOM	1516	CG2	THR	206	40.387	16.575	33.931	1.00	14.77
ATOM	1517	C	THR	206	36.551	16.794	33.503	1.00	18.52
ATOM	1518	O	THR	206	36.133	17.930	33.213	1.00	18.84
ATOM	1519	N	MET	207	35.794	15.889	34.120	1.00	18.42
ATOM	1520	CA	MET	207	34.413	16.199	34.472	1.00	16.18
ATOM	1521	CB	MET	207	33.541	16.212	33.209	1.00	17.87
ATOM	1522	CG	MET	207	32.037	16.344	33.516	1.00	17.17
ATOM	1523	SD	MET	207	31.016	16.399	32.073	1.00	17.60
ATOM	1524	CE	MET	207	31.259	14.774	31.451	1.00	22.99
ATOM	1525	C	MET	207	33.763	15.278	35.482	1.00	16.62
ATOM	1526	O	MET	207	33.688	14.065	35.272	1.00	18.22
ATOM	1527	N	ALA	208	33.284	15.848	36.579	1.00	12.38
ATOM	1528	CA	ALA	208	32.591	15.078	37.587	1.00	11.91
ATOM	1529	CB	ALA	208	32.680	15.753	38.913	1.00	9.38
ATOM	1530	C	ALA	208	31.145	15.056	37.066	1.00	12.00
ATOM	1531	O	ALA	208	30.274	15.771	37.554	1.00	11.26
ATOM	1532	N	GLY	209	30.925	14.246	36.036	1.00	12.42
ATOM	1533	CA	GLY	209	29.618	14.139	35.398	1.00	16.72
ATOM	1534	C	GLY	209	28.484	14.028	36.384	1.00	19.06
ATOM	1535	O	GLY	209	27.578	14.848	36.383	1.00	20.59
ATOM	1536	N	ASN	210	28.567	13.038	37.260	1.00	21.24
ATOM	1537	CA	ASN	210	27.543	12.814	38.262	1.00	24.44
ATOM	1538	CB	ASN	210	27.974	11.723	39.271	1.00	25.49
ATOM	1539	CG	ASN	210	29.194	12.119	40.122	1.00	33.50
ATOM	1540	OD1	ASN	210	29.129	12.141	41.360	1.00	34.80
ATOM	1541	ND2	ASN	210	30.321	12.378	39.466	1.00	32.41
ATOM	1542	C	ASN	210	27.177	14.111	38.978	1.00	25.55
ATOM	1543	O	ASN	210	25.996	14.488	39.017	1.00	27.11
ATOM	1544	N	GLU	211	28.193	14.852	39.425	1.00	22.84
ATOM	1545	CA	GLU	211	27.971	16.090	40.164	1.00	20.32
ATOM	1546	CB	GLU	211	29.159	16.398	41.070	1.00	17.53
ATOM	1547	CG	GLU	211	29.248	15.478	42.269	1.00	23.98

ATOM	1548	CD	GLU	211	30.687	15.169	42.657	1.00	27.14
ATOM	1549	OE1	GLU	211	31.001	15.133	43.865	1.00	28.94
ATOM	1550	OE2	GLU	211	31.508	14.943	41.744	1.00	32.92
ATOM	1551	C	GLU	211	27.595	17.308	39.352	1.00	17.73
ATOM	1552	O	GLU	211	27.050	18.245	39.908	1.00	19.55
ATOM	1553	N	VAL	212	27.889	17.299	38.058	1.00	18.86
ATOM	1554	CA	VAL	212	27.555	18.405	37.163	1.00	19.45
ATOM	1555	CB	VAL	212	28.447	18.387	35.897	1.00	13.66
ATOM	1556	CG1	VAL	212	27.990	19.429	34.892	1.00	10.49
ATOM	1557	CG2	VAL	212	29.888	18.648	36.286	1.00	11.31
ATOM	1558	C	VAL	212	26.064	18.315	36.778	1.00	25.20
ATOM	1559	O	VAL	212	25.342	19.319	36.805	1.00	27.15
ATOM	1560	N	PHE	213	25.612	17.102	36.457	1.00	24.63
ATOM	1561	CA	PHE	213	24.219	16.826	36.091	1.00	25.87
ATOM	1562	CB	PHE	213	24.014	15.309	36.085	1.00	23.74
ATOM	1563	CG	PHE	213	22.634	14.870	35.698	1.00	23.97
ATOM	1564	CD1	PHE	213	22.384	14.386	34.422	1.00	27.08
ATOM	1565	CD2	PHE	213	21.589	14.910	36.613	1.00	22.61
ATOM	1566	CE1	PHE	213	21.105	13.944	34.058	1.00	23.26
ATOM	1567	CE2	PHE	213	20.308	14.475	36.256	1.00	23.27
ATOM	1568	CZ	PHE	213	20.071	13.993	34.980	1.00	21.74
ATOM	1569	C	PHE	213	23.276	17.437	37.126	1.00	26.46
ATOM	1570	O	PHE	213	22.284	18.080	36.801	1.00	28.12
ATOM	1571	N	LYS	214	23.592	17.183	38.381	1.00	25.78
ATOM	1572	CA	LYS	214	22.810	17.653	39.495	1.00	26.51
ATOM	1573	CB	LYS	214	23.482	17.194	40.781	1.00	30.19
ATOM	1574	CG	LYS	214	22.828	17.685	42.042	1.00	32.98
ATOM	1575	CD	LYS	214	23.848	17.885	43.140	1.00	32.24
ATOM	1576	CE	LYS	214	23.151	18.168	44.464	1.00	33.29
ATOM	1577	NZ	LYS	214	22.451	16.953	44.995	1.00	29.00
ATOM	1578	C	LYS	214	22.626	19.165	39.517	1.00	27.00
ATOM	1579	O	LYS	214	21.499	19.652	39.564	1.00	28.54
ATOM	1580	N	VAL	215	23.732	19.900	39.515	1.00	26.64
ATOM	1581	CA	VAL	215	23.678	21.361	39.564	1.00	26.12
ATOM	1582	CB	VAL	215	25.056	21.978	39.881	1.00	27.55
ATOM	1583	CG1	VAL	215	24.953	23.494	39.907	1.00	27.76
ATOM	1584	CG2	VAL	215	25.573	21.469	41.226	1.00	23.32
ATOM	1585	C	VAL	215	23.119	21.968	38.279	1.00	24.40
ATOM	1586	O	VAL	215	22.397	22.961	38.320	1.00	23.58
ATOM	1587	N	ALA	216	23.389	21.331	37.148	1.00	21.80
ATOM	1588	CA	ALA	216	22.884	21.833	35.880	1.00	19.74
ATOM	1589	CB	ALA	216	23.407	21.001	34.728	1.00	18.25

ATOM	1590	C	ALA	216	21.352	21.902	35.841	1.00	20.86
ATOM	1591	O	ALA	216	20.791	22.922	35.426	1.00	14.72
ATOM	1592	N	VAL	217	20.683	20.835	36.295	1.00	23.23
ATOM	1593	CA	VAL	217	19.211	20.800	36.289	1.00	27.77
ATOM	1594	CB	VAL	217	18.617	19.373	36.520	1.00	26.51
ATOM	1595	CG1	VAL	217	19.273	18.372	35.593	1.00	28.12
ATOM	1596	CG2	VAL	217	18.738	18.948	37.966	1.00	27.13
ATOM	1597	C	VAL	217	18.584	21.792	37.264	1.00	26.99
ATOM	1598	O	VAL	217	17.531	22.350	36.980	1.00	30.51
ATOM	1599	N	THR	218	19.226	22.008	38.407	1.00	27.38
ATOM	1600	CA	THR	218	18.727	22.955	39.391	1.00	25.67
ATOM	1601	CB	THR	218	19.600	22.947	40.665	1.00	24.79
ATOM	1602	OG1	THR	218	19.810	21.600	41.103	1.00	25.10
ATOM	1603	CG2	THR	218	18.923	23.714	41.790	1.00	25.71
ATOM	1604	C	THR	218	18.735	24.369	38.788	1.00	26.77
ATOM	1605	O	THR	218	17.728	25.074	38.829	1.00	27.81
ATOM	1606	N	GLU	219	19.840	24.746	38.152	1.00	26.59
ATOM	1607	CA	GLU	219	19.982	26.080	37.571	1.00	27.18
ATOM	1608	CB	GLU	219	21.466	26.432	37.396	1.00	29.57
ATOM	1609	CG	GLU	219	22.324	26.264	38.652	1.00	28.20
ATOM	1610	CD	GLU	219	21.781	26.999	39.859	1.00	33.87
ATOM	1611	OE1	GLU	219	22.192	26.668	40.994	1.00	36.29
ATOM	1612	OE2	GLU	219	20.939	27.906	39.685	1.00	36.43
ATOM	1613	C	GLU	219	19.219	26.330	36.266	1.00	27.60
ATOM	1614	O	GLU	219	18.743	27.443	36.029	1.00	27.01
ATOM	1615	N	LEU	220	19.111	25.315	35.415	1.00	26.01
ATOM	1616	CA	LEU	220	18.374	25.471	34.167	1.00	26.95
ATOM	1617	CB	LEU	220	18.520	24.225	33.287	1.00	26.03
ATOM	1618	CG	LEU	220	19.923	23.960	32.731	1.00	28.49
ATOM	1619	CD1	LEU	220	19.870	22.888	31.657	1.00	27.43
ATOM	1620	CD2	LEU	220	20.495	25.251	32.136	1.00	28.55
ATOM	1621	C	LEU	220	16.912	25.708	34.524	1.00	29.42
ATOM	1622	O	LEU	220	16.211	26.489	33.880	1.00	29.39
ATOM	1623	N	ALA	221	16.487	25.054	35.601	1.00	31.23
ATOM	1624	CA	ALA	221	15.129	25.150	36.108	1.00	30.51
ATOM	1625	CB	ALA	221	14.946	24.174	37.276	1.00	28.62
ATOM	1626	C	ALA	221	14.916	26.570	36.579	1.00	28.94
ATOM	1627	O	ALA	221	13.991	27.250	36.148	1.00	27.71
ATOM	1628	N	HIS	222	15.820	27.015	37.444	1.00	29.49
ATOM	1629	CA	HIS	222	15.769	28.349	38.014	1.00	28.80
ATOM	1630	CB	HIS	222	16.853	28.492	39.084	1.00	28.69
ATOM	1631	CG	HIS	222	16.678	27.566	40.249	1.00	29.15

ATOM	1632	CD2	HIS	222	17.047	27.686	41.547	1.00	29.46
ATOM	1633	ND1	HIS	222	16.032	26.354	40.147	1.00	29.01
ATOM	1634	CE1	HIS	222	16.004	25.768	41.331	1.00	26.69
ATOM	1635	NE2	HIS	222	16.612	26.556	42.198	1.00	30.66
ATOM	1636	C	HIS	222	15.881	29.478	36.978	1.00	28.56
ATOM	1637	O	HIS	222	15.137	30.477	37.065	1.00	29.66
ATOM	1638	N	ILE	223	16.755	29.315	35.979	1.00	23.60
ATOM	1639	CA	ILE	223	16.912	30.362	34.991	1.00	20.16
ATOM	1640	CB	ILE	223	18.266	30.301	34.240	1.00	18.91
ATOM	1641	CG2	ILE	223	18.196	29.344	33.061	1.00	13.15
ATOM	1642	CG1	ILE	223	18.640	31.727	33.784	1.00	11.68
ATOM	1643	CD1	ILE	223	19.946	31.859	33.082	1.00	13.10
ATOM	1644	C	ILE	223	15.750	30.523	34.011	1.00	20.22
ATOM	1645	O	ILE	223	15.480	31.635	33.555	1.00	19.50
ATOM	1646	N	VAL	224	15.055	29.438	33.685	1.00	20.53
ATOM	1647	CA	VAL	224	13.930	29.547	32.761	1.00	21.67
ATOM	1648	CB	VAL	224	13.389	28.158	32.321	1.00	21.84
ATOM	1649	CG1	VAL	224	12.102	28.325	31.496	1.00	16.46
ATOM	1650	CG2	VAL	224	14.452	27.424	31.495	1.00	19.92
ATOM	1651	C	VAL	224	12.803	30.355	33.401	1.00	20.74
ATOM	1652	O	VAL	224	12.225	31.244	32.778	1.00	17.54
ATOM	1653	N	ASP	225	12.526	30.069	34.663	1.00	23.30
ATOM	1654	CA	ASP	225	11.469	30.772	35.366	1.00	23.99
ATOM	1655	CB	ASP	225	11.058	29.992	36.622	1.00	25.20
ATOM	1656	CG	ASP	225	10.327	28.677	36.287	1.00	25.52
ATOM	1657	OD1	ASP	225	10.474	27.700	37.053	1.00	28.24
ATOM	1658	OD2	ASP	225	9.613	28.619	35.260	1.00	21.35
ATOM	1659	C	ASP	225	11.835	32.227	35.679	1.00	23.30
ATOM	1660	O	ASP	225	10.961	33.063	35.857	1.00	20.53
ATOM	1661	N	GLU	226	13.131	32.529	35.722	1.00	25.09
ATOM	1662	CA	GLU	226	13.602	33.893	35.969	1.00	22.81
ATOM	1663	CB	GLU	226	15.070	33.856	36.387	1.00	26.17
ATOM	1664	CG	GLU	226	15.660	35.194	36.801	1.00	30.26
ATOM	1665	CD	GLU	226	17.186	35.200	36.792	1.00	32.05
ATOM	1666	OE1	GLU	226	17.763	36.220	36.343	1.00	30.30
ATOM	1667	OE2	GLU	226	17.795	34.194	37.230	1.00	27.08
ATOM	1668	C	GLU	226	13.451	34.721	34.680	1.00	22.54
ATOM	1669	O	GLU	226	13.228	35.938	34.725	1.00	23.67
ATOM	1670	N	THR	227	13.585	34.055	33.536	1.00	20.23
ATOM	1671	CA	THR	227	13.470	34.688	32.217	1.00	19.61
ATOM	1672	CB	THR	227	14.101	33.781	31.136	1.00	14.68
ATOM	1673	OG1	THR	227	15.440	33.498	31.524	1.00	15.59

ATOM	1674	CG2	THR	227	14.128	34.450	29.758	1.00	13.27
ATOM	1675	C	THR	227	12.004	34.955	31.903	1.00	19.00
ATOM	1676	O	THR	227	11.663	35.850	31.124	1.00	18.07
ATOM	1677	N	LEU	228	11.145	34.152	32.525	1.00	21.42
ATOM	1678	CA	LEU	228	9.703	34.277	32.359	1.00	18.97
ATOM	1679	CB	LEU	228	9.000	32.932	32.644	1.00	16.50
ATOM	1680	CG	LEU	228	9.405	31.760	31.744	1.00	14.60
ATOM	1681	CD1	LEU	228	8.647	30.521	32.155	1.00	15.94
ATOM	1682	CD2	LEU	228	9.169	32.071	30.267	1.00	12.38
ATOM	1683	C	LEU	228	9.204	35.376	33.292	1.00	13.94
ATOM	1684	O	LEU	228	8.514	36.288	32.852	1.00	13.96
ATOM	1685	N	ALA	229	9.627	35.316	34.555	1.00	15.70
ATOM	1686	CA	ALA	229	9.259	36.289	35.582	1.00	16.87
ATOM	1687	CB	ALA	229	9.718	35.820	36.947	1.00	8.21
ATOM	1688	C	ALA	229	9.773	37.700	35.331	1.00	20.64
ATOM	1689	O	ALA	229	9.320	38.663	35.971	1.00	23.12
ATOM	1690	N	ALA	230	10.748	37.813	34.442	1.00	21.99
ATOM	1691	CA	ALA	230	11.335	39.101	34.094	1.00	22.38
ATOM	1692	CB	ALA	230	12.765	38.901	33.605	1.00	21.55
ATOM	1693	C	ALA	230	10.497	39.795	33.018	1.00	22.16
ATOM	1694	O	ALA	230	10.545	41.022	32.858	1.00	21.76
ATOM	1695	N	ASN	231	9.743	38.991	32.276	1.00	19.21
ATOM	1696	CA	ASN	231	8.892	39.476	31.206	1.00	16.40
ATOM	1697	CB	ASN	231	9.291	38.808	29.894	1.00	18.97
ATOM	1698	CG	ASN	231	10.721	39.113	29.488	1.00	23.53
ATOM	1699	OD1	ASN	231	11.657	38.378	29.834	1.00	24.82
ATOM	1700	ND2	ASN	231	10.897	40.180	28.720	1.00	20.60
ATOM	1701	C	ASN	231	7.399	39.211	31.454	1.00	13.97
ATOM	1702	O	ASN	231	6.613	39.253	30.510	1.00	14.75
ATOM	1703	N	ASN	232	7.005	38.905	32.688	1.00	12.37
ATOM	1704	CA	ASN	232	5.596	38.624	32.984	1.00	16.10
ATOM	1705	CB	ASN	232	4.779	39.919	32.998	1.00	16.69
ATOM	1706	CG	ASN	232	3.349	39.702	33.466	1.00	18.61
ATOM	1707	OD1	ASN	232	3.101	39.383	34.630	1.00	12.86
ATOM	1708	ND2	ASN	232	2.403	39.883	32.557	1.00	21.08
ATOM	1709	C	ASN	232	5.011	37.666	31.948	1.00	17.24
ATOM	1710	O	ASN	232	4.113	38.022	31.162	1.00	18.30
ATOM	1711	N	LEU	233	5.617	36.487	31.880	1.00	16.92
ATOM	1712	CA	LEU	233	5.197	35.441	30.962	1.00	14.41
ATOM	1713	CB	LEU	233	6.275	35.154	29.927	1.00	12.01
ATOM	1714	CG	LEU	233	6.330	36.081	28.729	1.00	15.92
ATOM	1715	CD1	LEU	233	7.544	35.764	27.880	1.00	15.70

ATOM	1716	CD2	LEU	233	5.054	35.903	27.939	1.00	17.38
ATOM	1717	C	LEU	233	4.962	34.194	31.770	1.00	13.26
ATOM	1718	O	LEU	233	5.447	34.071	32.895	1.00	12.03
ATOM	1719	N	ASP	234	4.238	33.256	31.174	1.00	16.90
ATOM	1720	CA	ASP	234	3.941	31.982	31.820	1.00	16.15
ATOM	1721	CB	ASP	234	2.432	31.729	31.808	1.00	21.24
ATOM	1722	CG	ASP	234	2.010	30.679	32.807	1.00	22.97
ATOM	1723	OD1	ASP	234	1.925	29.482	32.425	1.00	23.50
ATOM	1724	OD2	ASP	234	1.760	31.069	33.972	1.00	28.77
ATOM	1725	C	ASP	234	4.635	30.926	30.972	1.00	12.98
ATOM	1726	O	ASP	234	4.786	31.114	29.762	1.00	12.23
ATOM	1727	N	ARG	235	5.047	29.831	31.610	1.00	16.57
ATOM	1728	CA	ARG	235	5.729	28.706	30.934	1.00	16.82
ATOM	1729	CB	ARG	235	5.826	27.514	31.886	1.00	23.36
ATOM	1730	CG	ARG	235	6.697	27.701	33.121	1.00	24.57
ATOM	1731	CD	ARG	235	6.444	26.556	34.107	1.00	26.45
ATOM	1732	NE	ARG	235	7.463	26.459	35.143	1.00	26.66
ATOM	1733	CZ	ARG	235	7.418	25.599	36.154	1.00	29.18
ATOM	1734	NH1	ARG	235	8.387	25.582	37.056	1.00	27.18
ATOM	1735	NH2	ARG	235	6.410	24.739	36.260	1.00	35.84
ATOM	1736	C	ARG	235	4.973	28.247	29.688	1.00	16.83
ATOM	1737	O	ARG	235	5.551	28.009	28.627	1.00	13.54
ATOM	1738	N	SER	236	3.661	28.099	29.852	1.00	17.94
ATOM	1739	CA	SER	236	2.767	27.686	28.783	1.00	18.21
ATOM	1740	CB	SER	236	1.333	27.638	29.309	1.00	19.52
ATOM	1741	OG	SER	236	1.051	28.762	30.138	1.00	19.51
ATOM	1742	C	SER	236	2.837	28.627	27.600	1.00	17.87
ATOM	1743	O	SER	236	2.320	28.323	26.530	1.00	19.95
ATOM	1744	N	GLN	237	3.451	29.789	27.793	1.00	19.02
ATOM	1745	CA	GLN	237	3.546	30.769	26.718	1.00	16.72
ATOM	1746	CB	GLN	237	3.489	32.204	27.279	1.00	20.51
ATOM	1747	CG	GLN	237	2.178	32.524	28.039	1.00	11.52
ATOM	1748	CD	GLN	237	1.971	34.012	28.258	1.00	9.94
ATOM	1749	OE1	GLN	237	1.624	34.753	27.338	1.00	7.43
ATOM	1750	NE2	GLN	237	2.144	34.446	29.488	1.00	8.28
ATOM	1751	C	GLN	237	4.731	30.559	25.771	1.00	18.31
ATOM	1752	O	GLN	237	4.756	31.120	24.674	1.00	13.97
ATOM	1753	N	LEU	238	5.676	29.703	26.169	1.00	19.23
ATOM	1754	CA	LEU	238	6.828	29.394	25.323	1.00	15.73
ATOM	1755	CB	LEU	238	7.947	28.779	26.163	1.00	13.71
ATOM	1756	CG	LEU	238	8.645	29.715	27.135	1.00	7.30
ATOM	1757	CD1	LEU	238	9.431	28.933	28.178	1.00	4.52

ATOM	1758	CD2	LEU	238	9.514	30.657	26.302	1.00	2.00
ATOM	1759	C	LEU	238	6.376	28.391	24.264	1.00	14.45
ATOM	1760	O	LEU	238	5.591	27.495	24.564	1.00	16.65
ATOM	1761	N	ASP	239	6.869	28.548	23.043	1.00	13.26
ATOM	1762	CA	ASP	239	6.543	27.665	21.925	1.00	18.69
ATOM	1763	CB	ASP	239	6.356	28.449	20.616	1.00	18.49
ATOM	1764	CG	ASP	239	5.140	29.383	20.637	1.00	22.11
ATOM	1765	OD1	ASP	239	5.309	30.618	20.481	1.00	20.84
ATOM	1766	OD2	ASP	239	4.011	28.878	20.769	1.00	24.51
ATOM	1767	C	ASP	239	7.664	26.650	21.696	1.00	23.38
ATOM	1768	O	ASP	239	7.446	25.615	21.058	1.00	23.64
ATOM	1769	N	TRP	240	8.867	26.964	22.181	1.00	24.23
ATOM	1770	CA	TRP	240	10.027	26.090	22.006	1.00	22.67
ATOM	1771	CB	TRP	240	10.696	26.348	20.662	1.00	21.59
ATOM	1772	CG	TRP	240	9.954	25.939	19.462	1.00	22.67
ATOM	1773	CD2	TRP	240	9.763	24.600	18.995	1.00	22.89
ATOM	1774	CE2	TRP	240	9.095	24.682	17.756	1.00	24.13
ATOM	1775	CE3	TRP	240	10.099	23.338	19.502	1.00	23.71
ATOM	1776	CD1	TRP	240	9.399	26.756	18.529	1.00	20.41
ATOM	1777	NE1	TRP	240	8.885	26.011	17.495	1.00	23.26
ATOM	1778	CZ2	TRP	240	8.752	23.541	17.006	1.00	19.17
ATOM	1779	CZ3	TRP	240	9.759	22.207	18.756	1.00	21.26
ATOM	1780	CH2	TRP	240	9.093	22.321	17.522	1.00	18.42
ATOM	1781	C	TRP	240	11.113	26.339	23.039	1.00	23.53
ATOM	1782	O	TRP	240	11.314	27.482	23.480	1.00	24.11
ATOM	1783	N	LEU	241	11.801	25.258	23.413	1.00	21.02
ATOM	1784	CA	LEU	241	12.959	25.306	24.303	1.00	17.07
ATOM	1785	CB	LEU	241	12.781	24.424	25.543	1.00	12.81
ATOM	1786	CG	LEU	241	13.886	24.406	26.609	1.00	13.37
ATOM	1787	CD1	LEU	241	13.972	25.750	27.326	1.00	7.27
ATOM	1788	CD2	LEU	241	13.613	23.291	27.618	1.00	7.68
ATOM	1789	C	LEU	241	14.094	24.764	23.420	1.00	17.21
ATOM	1790	O	LEU	241	13.889	23.820	22.653	1.00	19.43
ATOM	1791	N	VAL	242	15.216	25.473	23.395	1.00	15.47
ATOM	1792	CA	VAL	242	16.387	25.069	22.629	1.00	13.81
ATOM	1793	CB	VAL	242	16.703	26.014	21.476	1.00	17.12
ATOM	1794	CG1	VAL	242	18.009	25.616	20.818	1.00	18.86
ATOM	1795	CG2	VAL	242	15.586	25.969	20.446	1.00	19.00
ATOM	1796	C	VAL	242	17.475	25.122	23.663	1.00	14.34
ATOM	1797	O	VAL	242	18.105	26.160	23.879	1.00	16.20
ATOM	1798	N	PRO	243	17.657	24.010	24.379	1.00	13.92
ATOM	1799	CD	PRO	243	17.010	22.716	24.052	1.00	14.09

ATOM	1800	CA	PRO	243	18.636	23.837	25.438	1.00	11.98
ATOM	1801	CB	PRO	243	18.037	22.672	26.210	1.00	13.65
ATOM	1802	CG	PRO	243	17.591	21.759	25.066	1.00	10.60
ATOM	1803	C	PRO	243	20.010	23.466	24.891	1.00	12.57
ATOM	1804	O	PRO	243	20.181	23.219	23.703	1.00	12.49
ATOM	1805	N	HIS	244	21.005	23.509	25.764	1.00	14.90
ATOM	1806	CA	HIS	244	22.348	23.098	25.390	1.00	17.43
ATOM	1807	CB	HIS	244	23.328	23.551	26.478	1.00	17.97
ATOM	1808	CG	HIS	244	24.644	22.836	26.459	1.00	18.58
ATOM	1809	CD2	HIS	244	25.582	22.714	25.488	1.00	18.43
ATOM	1810	ND1	HIS	244	25.123	22.136	27.546	1.00	18.75
ATOM	1811	CE1	HIS	244	26.295	21.608	27.243	1.00	21.88
ATOM	1812	NE2	HIS	244	26.597	21.944	26.000	1.00	17.34
ATOM	1813	C	HIS	244	22.190	21.563	25.366	1.00	17.94
ATOM	1814	O	HIS	244	21.579	20.979	26.286	1.00	18.08
ATOM	1815	N	GLN	245	22.666	20.925	24.297	1.00	16.21
ATOM	1816	CA	GLN	245	22.557	19.477	24.139	1.00	17.11
ATOM	1817	CB	GLN	245	22.555	19.165	22.655	1.00	14.89
ATOM	1818	CG	GLN	245	21.583	20.038	21.854	1.00	19.29
ATOM	1819	CD	GLN	245	20.125	19.647	22.060	1.00	19.16
ATOM	1820	OE1	GLN	245	19.215	20.478	21.960	1.00	19.24
ATOM	1821	NE2	GLN	245	19.893	18.361	22.321	1.00	18.50
ATOM	1822	C	GLN	245	23.706	18.732	24.829	1.00	19.03
ATOM	1823	O	GLN	245	24.727	18.473	24.217	1.00	22.89
ATOM	1824	N	ALA	246	23.569	18.461	26.118	1.00	19.92
ATOM	1825	CA	ALA	246	24.594	17.753	26.886	1.00	22.75
ATOM	1826	CB	ALA	246	24.851	18.474	28.207	1.00	20.40
ATOM	1827	C	ALA	246	24.197	16.301	27.174	1.00	25.65
ATOM	1828	O	ALA	246	24.941	15.364	26.869	1.00	27.18
ATOM	1829	N	ASN	247	23.035	16.122	27.793	1.00	26.14
ATOM	1830	CA	ASN	247	22.545	14.795	28.146	1.00	26.38
ATOM	1831	CB	ASN	247	22.964	14.464	29.587	1.00	28.11
ATOM	1832	CG	ASN	247	22.574	13.044	30.019	1.00	32.46
ATOM	1833	OD1	ASN	247	21.552	12.486	29.583	1.00	30.09
ATOM	1834	ND2	ASN	247	23.371	12.470	30.912	1.00	31.19
ATOM	1835	C	ASN	247	21.021	14.827	28.020	1.00	26.38
ATOM	1836	O	ASN	247	20.381	15.783	28.497	1.00	24.78
ATOM	1837	N	LEU	248	20.449	13.797	27.383	1.00	26.04
ATOM	1838	CA	LEU	248	18.997	13.703	27.191	1.00	24.77
ATOM	1839	CB	LEU	248	18.613	12.433	26.440	1.00	24.83
ATOM	1840	CG	LEU	248	17.264	12.535	25.708	1.00	24.22
ATOM	1841	CD1	LEU	248	17.300	11.707	24.449	1.00	26.33

ATOM	1842	CD2	LEU	248	16.110	12.127	26.590	1.00	23.65
ATOM	1843	C	LEU	248	18.258	13.759	28.519	1.00	24.24
ATOM	1844	O	LEU	248	17.170	14.315	28.607	1.00	24.45
ATOM	1845	N	ARG	249	18.874	13.233	29.565	1.00	26.17
ATOM	1846	CA	ARG	249	18.258	13.248	30.883	1.00	30.19
ATOM	1847	CB	ARG	249	19.121	12.485	31.888	1.00	35.11
ATOM	1848	CG	ARG	249	19.108	10.966	31.765	1.00	43.00
ATOM	1849	CD	ARG	249	19.972	10.354	32.866	1.00	44.87
ATOM	1850	NE	ARG	249	19.731	8.925	33.028	1.00	50.32
ATOM	1851	CZ	ARG	249	20.637	7.982	32.790	1.00	52.25
ATOM	1852	NH1	ARG	249	20.325	6.704	32.968	1.00	53.12
ATOM	1853	NH2	ARG	249	21.859	8.317	32.389	1.00	52.77
ATOM	1854	C	ARG	249	18.051	14.666	31.401	1.00	30.27
ATOM	1855	O	ARG	249	16.996	14.998	31.929	1.00	29.21
ATOM	1856	N	ILE	250	19.081	15.493	31.290	1.00	31.13
ATOM	1857	CA	ILE	250	19.002	16.861	31.771	1.00	30.26
ATOM	1858	CB	ILE	250	20.370	17.568	31.635	1.00	31.49
ATOM	1859	CG2	ILE	250	20.223	19.098	31.810	1.00	27.57
ATOM	1860	CG1	ILE	250	21.337	16.965	32.663	1.00	27.31
ATOM	1861	CD1	ILE	250	22.731	17.538	32.648	1.00	29.25
ATOM	1862	C	ILE	250	17.903	17.621	31.028	1.00	29.32
ATOM	1863	O	ILE	250	17.046	18.250	31.648	1.00	30.29
ATOM	1864	N	ILE	251	17.888	17.498	29.706	1.00	25.49
ATOM	1865	CA	ILE	251	16.890	18.173	28.902	1.00	23.33
ATOM	1866	CB	ILE	251	17.079	17.853	27.437	1.00	20.11
ATOM	1867	CG2	ILE	251	16.044	18.585	26.622	1.00	19.84
ATOM	1868	CG1	ILE	251	18.503	18.198	27.008	1.00	17.49
ATOM	1869	CD1	ILE	251	18.799	17.865	25.555	1.00	13.30
ATOM	1870	C	ILE	251	15.464	17.770	29.307	1.00	26.55
ATOM	1871	O	ILE	251	14.597	18.637	29.500	1.00	25.22
ATOM	1872	N	SER	252	15.227	16.461	29.418	1.00	26.00
ATOM	1873	CA	SER	252	13.925	15.925	29.794	1.00	25.90
ATOM	1874	CB	SER	252	13.953	14.395	29.730	1.00	28.63
ATOM	1875	OG	SER	252	14.426	13.934	28.475	1.00	35.62
ATOM	1876	C	SER	252	13.535	16.357	31.206	1.00	25.04
ATOM	1877	O	SER	252	12.362	16.582	31.494	1.00	27.50
ATOM	1878	N	ALA	253	14.519	16.478	32.084	1.00	22.59
ATOM	1879	CA	ALA	253	14.261	16.873	33.462	1.00	24.69
ATOM	1880	CB	ALA	253	15.505	16.649	34.321	1.00	21.09
ATOM	1881	C	ALA	253	13.850	18.330	33.501	1.00	25.96
ATOM	1882	O	ALA	253	13.017	18.715	34.310	1.00	27.65
ATOM	1883	N	THR	254	14.425	19.129	32.605	1.00	28.17

ATOM	1884	CA	THR	254	14.125	20.557	32.533	1.00	28.99
ATOM	1885	CB	THR	254	15.163	21.334	31.652	1.00	30.59
ATOM	1886	OG1	THR	254	16.498	20.902	31.965	1.00	32.02
ATOM	1887	CG2	THR	254	15.076	22.836	31.923	1.00	28.08
ATOM	1888	C	THR	254	12.737	20.717	31.924	1.00	29.07
ATOM	1889	O	THR	254	11.897	21.452	32.454	1.00	27.84
ATOM	1890	N	ALA	255	12.500	19.987	30.835	1.00	27.17
ATOM	1891	CA	ALA	255	11.230	20.014	30.127	1.00	30.99
ATOM	1892	CB	ALA	255	11.277	19.084	28.915	1.00	26.53
ATOM	1893	C	ALA	255	10.065	19.647	31.050	1.00	32.46
ATOM	1894	O	ALA	255	9.095	20.398	31.154	1.00	34.46
ATOM	1895	N	LYS	256	10.180	18.525	31.755	1.00	34.90
ATOM	1896	CA	LYS	256	9.125	18.083	32.669	1.00	34.28
ATOM	1897	CB	LYS	256	9.515	16.749	33.322	1.00	36.11
ATOM	1898	CG	LYS	256	8.336	15.842	33.652	1.00	38.81
ATOM	1899	CD	LYS	256	7.410	16.446	34.699	1.00	37.92
ATOM	1900	CE	LYS	256	5.988	15.912	34.569	1.00	39.44
ATOM	1901	NZ	LYS	256	5.046	16.668	35.438	1.00	38.90
ATOM	1902	C	LYS	256	8.864	19.136	33.752	1.00	34.88
ATOM	1903	O	LYS	256	7.709	19.521	34.005	1.00	33.65
ATOM	1904	N	LYS	257	9.944	19.618	34.363	1.00	34.94
ATOM	1905	CA	LYS	257	9.867	20.623	35.424	1.00	34.02
ATOM	1906	CB	LYS	257	11.259	20.889	35.985	1.00	39.02
ATOM	1907	CG	LYS	257	11.292	21.301	37.456	1.00	42.03
ATOM	1908	CD	LYS	257	12.737	21.317	37.982	1.00	42.71
ATOM	1909	CE	LYS	257	12.850	22.031	39.323	1.00	44.36
ATOM	1910	NZ	LYS	257	11.936	21.462	40.360	1.00	48.45
ATOM	1911	C	LYS	257	9.195	21.939	35.006	1.00	30.13
ATOM	1912	O	LYS	257	8.685	22.668	35.852	1.00	28.61
ATOM	1913	N	LEU	258	9.208	22.250	33.716	1.00	26.35
ATOM	1914	CA	LEU	258	8.555	23.460	33.218	1.00	26.13
ATOM	1915	CB	LEU	258	9.421	24.135	32.152	1.00	26.88
ATOM	1916	CG	LEU	258	10.542	25.144	32.469	1.00	26.32
ATOM	1917	CD1	LEU	258	10.881	25.232	33.952	1.00	26.11
ATOM	1918	CD2	LEU	258	11.764	24.757	31.651	1.00	19.96
ATOM	1919	C	LEU	258	7.175	23.123	32.620	1.00	26.06
ATOM	1920	O	LEU	258	6.498	24.000	32.094	1.00	24.94
ATOM	1921	N	GLY	259	6.782	21.848	32.683	1.00	25.29
ATOM	1922	CA	GLY	259	5.502	21.414	32.148	1.00	23.20
ATOM	1923	C	GLY	259	5.417	21.445	30.632	1.00	25.48
ATOM	1924	O	GLY	259	4.340	21.642	30.043	1.00	27.55
ATOM	1925	N	MET	260	6.538	21.196	29.978	1.00	19.97

ATOM	1926	CA	MET	260	6.561	21.221	28.529	1.00	21.55
ATOM	1927	CB	MET	260	7.722	22.101	28.051	1.00	20.83
ATOM	1928	CG	MET	260	7.610	23.565	28.458	1.00	18.33
ATOM	1929	SD	MET	260	9.141	24.515	28.151	1.00	13.57
ATOM	1930	CE	MET	260	9.048	24.901	26.464	1.00	2.00
ATOM	1931	C	MET	260	6.682	19.836	27.906	1.00	19.57
ATOM	1932	O	MET	260	7.200	18.909	28.521	1.00	21.34
ATOM	1933	N	SER	261	6.225	19.721	26.668	1.00	19.45
ATOM	1934	CA	SER	261	6.306	18.471	25.946	1.00	22.30
ATOM	1935	CB	SER	261	5.128	18.342	24.984	1.00	25.55
ATOM	1936	OG	SER	261	5.433	17.445	23.918	1.00	30.20
ATOM	1937	C	SER	261	7.602	18.438	25.152	1.00	23.54
ATOM	1938	O	SER	261	8.027	19.459	24.607	1.00	24.98
ATOM	1939	N	MET	262	8.194	17.257	25.013	1.00	23.16
ATOM	1940	CA	MET	262	9.425	17.148	24.252	1.00	22.02
ATOM	1941	CB	MET	262	9.979	15.716	24.253	1.00	17.23
ATOM	1942	CG	MET	262	10.604	15.271	25.574	1.00	15.78
ATOM	1943	SD	MET	262	11.922	16.353	26.281	1.00	17.50
ATOM	1944	CE	MET	262	13.141	16.170	24.984	1.00	15.96
ATOM	1945	C	MET	262	9.120	17.576	22.832	1.00	22.05
ATOM	1946	O	MET	262	10.029	17.747	22.022	1.00	24.48
ATOM	1947	N	ASP	263	7.834	17.724	22.524	1.00	21.64
ATOM	1948	CA	ASP	263	7.433	18.141	21.193	1.00	20.65
ATOM	1949	CB	ASP	263	5.980	17.752	20.920	1.00	27.69
ATOM	1950	CG	ASP	263	5.790	16.218	20.878	1.00	32.38
ATOM	1951	OD1	ASP	263	5.975	15.600	19.799	1.00	35.93
ATOM	1952	OD2	ASP	263	5.504	15.621	21.938	1.00	34.37
ATOM	1953	C	ASP	263	7.713	19.616	20.990	1.00	14.65
ATOM	1954	O	ASP	263	7.860	20.067	19.867	1.00	13.18
ATOM	1955	N	ASN	264	7.849	20.337	22.096	1.00	14.85
ATOM	1956	CA	ASN	264	8.191	21.770	22.100	1.00	20.07
ATOM	1957	CB	ASN	264	7.325	22.554	23.093	1.00	19.16
ATOM	1958	CG	ASN	264	5.916	22.740	22.617	1.00	23.34
ATOM	1959	OD1	ASN	264	4.973	22.311	23.282	1.00	28.10
ATOM	1960	ND2	ASN	264	5.754	23.372	21.463	1.00	24.52
ATOM	1961	C	ASN	264	9.652	21.920	22.568	1.00	22.15
ATOM	1962	O	ASN	264	9.985	22.873	23.301	1.00	24.53
ATOM	1963	N	VAL	265	10.497	20.949	22.220	1.00	19.39
ATOM	1964	CA	VAL	265	11.919	20.973	22.603	1.00	16.59
ATOM	1965	CB	VAL	265	12.213	19.962	23.720	1.00	16.31
ATOM	1966	CG1	VAL	265	13.713	19.925	24.046	1.00	5.98
ATOM	1967	CG2	VAL	265	11.365	20.281	24.963	1.00	11.20

ATOM	1968	C	VAL	265	12.749	20.593	21.403	1.00	14.42
ATOM	1969	O	VAL	265	12.352	19.717	20.646	1.00	17.01
ATOM	1970	N	VAL	266	13.846	21.302	21.160	1.00	13.51
ATOM	1971	CA	VAL	266	14.698	20.951	20.029	1.00	15.09
ATOM	1972	CB	VAL	266	15.327	22.167	19.335	1.00	12.64
ATOM	1973	CG1	VAL	266	16.113	21.695	18.128	1.00	14.08
ATOM	1974	CG2	VAL	266	14.257	23.135	18.887	1.00	14.55
ATOM	1975	C	VAL	266	15.804	20.067	20.582	1.00	14.84
ATOM	1976	O	VAL	266	16.489	20.454	21.519	1.00	16.03
ATOM	1977	N	VAL	267	15.881	18.838	20.081	1.00	15.30
ATOM	1978	CA	VAL	267	16.888	17.890	20.540	1.00	10.56
ATOM	1979	CB	VAL	267	16.285	16.619	21.221	1.00	12.63
ATOM	1980	CG1	VAL	267	17.426	15.659	21.657	1.00	9.98
ATOM	1981	CG2	VAL	267	15.454	16.987	22.428	1.00	5.08
ATOM	1982	C	VAL	267	17.691	17.488	19.326	1.00	11.28
ATOM	1983	O	VAL	267	17.146	17.179	18.254	1.00	6.61
ATOM	1984	N	THR	268	19.004	17.529	19.498	1.00	10.19
ATOM	1985	CA	THR	268	19.915	17.216	18.413	1.00	10.01
ATOM	1986	CB	THR	268	20.579	18.493	17.897	1.00	12.05
ATOM	1987	OG1	THR	268	21.103	19.195	19.035	1.00	13.38
ATOM	1988	CG2	THR	268	19.624	19.391	17.113	1.00	12.04
ATOM	1989	C	THR	268	21.088	16.383	18.914	1.00	7.82
ATOM	1990	O	THR	268	21.890	15.948	18.109	1.00	9.34
ATOM	1991	N	LEU	269	21.239	16.229	20.224	1.00	8.55
ATOM	1992	CA	LEU	269	22.397	15.488	20.740	1.00	12.86
ATOM	1993	CB	LEU	269	22.570	15.656	22.248	1.00	12.16
ATOM	1994	CG	LEU	269	22.124	14.538	23.171	1.00	14.93
ATOM	1995	CD1	LEU	269	22.876	14.670	24.481	1.00	13.82
ATOM	1996	CD2	LEU	269	20.613	14.552	23.383	1.00	17.25
ATOM	1997	C	LEU	269	22.470	14.020	20.351	1.00	16.12
ATOM	1998	O	LEU	269	23.525	13.393	20.433	1.00	15.56
ATOM	1999	N	ASP	270	21.345	13.467	19.935	1.00	15.13
ATOM	2000	CA	ASP	270	21.336	12.086	19.509	1.00	16.68
ATOM	2001	CB	ASP	270	19.901	11.641	19.191	1.00	18.99
ATOM	2002	CG	ASP	270	19.241	12.505	18.131	1.00	20.15
ATOM	2003	OD1	ASP	270	18.893	11.964	17.055	1.00	23.87
ATOM	2004	OD2	ASP	270	19.055	13.727	18.374	1.00	24.98
ATOM	2005	C	ASP	270	22.217	11.955	18.273	1.00	14.41
ATOM	2006	O	ASP	270	22.790	10.900	18.038	1.00	16.19
ATOM	2007	N	ARG	271	22.362	13.041	17.511	1.00	12.48
ATOM	2008	CA	ARG	271	23.153	13.036	16.276	1.00	10.07
ATOM	2009	CB	ARG	271	22.275	13.481	15.125	1.00	9.10

ATOM	2010	CG	ARG	271	21.103	12.574	14.788	1.00	16.31
ATOM	2011	CD	ARG	271	20.180	13.288	13.838	1.00	12.06
ATOM	2012	NE	ARG	271	19.556	14.379	14.577	1.00	20.50
ATOM	2013	CZ	ARG	271	19.508	15.659	14.202	1.00	15.73
ATOM	2014	NH1	ARG	271	18.919	16.527	15.001	1.00	14.41
ATOM	2015	NH2	ARG	271	20.009	16.063	13.042	1.00	10.73
ATOM	2016	C	ARG	271	24.427	13.923	16.286	1.00	11.92
ATOM	2017	O	ARG	271	25.251	13.846	15.363	1.00	11.36
ATOM	2018	N	HIS	272	24.563	14.761	17.317	1.00	14.12
ATOM	2019	CA	HIS	272	25.677	15.709	17.465	1.00	12.23
ATOM	2020	CB	HIS	272	25.149	17.157	17.591	1.00	11.88
ATOM	2021	CG	HIS	272	24.472	17.672	16.362	1.00	12.67
ATOM	2022	CD2	HIS	272	24.112	17.057	15.213	1.00	14.55
ATOM	2023	ND1	HIS	272	24.084	18.987	16.227	1.00	19.10
ATOM	2024	CE1	HIS	272	23.514	19.162	15.048	1.00	12.68
ATOM	2025	NE2	HIS	272	23.518	18.004	14.413	1.00	16.89
ATOM	2026	C	HIS	272	26.469	15.479	18.720	1.00	11.14
ATOM	2027	O	HIS	272	27.651	15.821	18.787	1.00	14.19
ATOM	2028	N	GLY	273	25.821	14.895	19.715	1.00	9.62
ATOM	2029	CA	GLY	273	26.461	14.734	20.998	1.00	10.85
ATOM	2030	C	GLY	273	26.497	16.156	21.549	1.00	13.97
ATOM	2031	O	GLY	273	25.776	17.026	21.055	1.00	12.05
ATOM	2032	N	ASN	274	27.325	16.399	22.555	1.00	13.47
ATOM	2033	CA	ASN	274	27.474	17.720	23.155	1.00	13.39
ATOM	2034	CB	ASN	274	27.818	17.530	24.622	1.00	15.56
ATOM	2035	CG	ASN	274	27.960	18.816	25.366	1.00	17.87
ATOM	2036	OD1	ASN	274	28.135	19.881	24.780	1.00	24.67
ATOM	2037	ND2	ASN	274	27.890	18.729	26.689	1.00	19.64
ATOM	2038	C	ASN	274	28.638	18.414	22.458	1.00	14.33
ATOM	2039	O	ASN	274	29.770	17.971	22.613	1.00	12.94
ATOM	2040	N	THR	275	28.356	19.438	21.642	1.00	13.72
ATOM	2041	CA	THR	275	29.398	20.184	20.928	1.00	9.09
ATOM	2042	CB	THR	275	29.058	20.434	19.457	1.00	8.58
ATOM	2043	OG1	THR	275	27.823	21.168	19.367	1.00	15.49
ATOM	2044	CG2	THR	275	28.975	19.115	18.664	1.00	11.00
ATOM	2045	C	THR	275	29.690	21.547	21.550	1.00	8.17
ATOM	2046	O	THR	275	30.043	22.500	20.843	1.00	12.11
ATOM	2047	N	SER	276	29.549	21.633	22.863	1.00	7.51
ATOM	2048	CA	SER	276	29.823	22.861	23.613	1.00	13.37
ATOM	2049	CB	SER	276	31.354	23.045	23.758	1.00	16.08
ATOM	2050	OG	SER	276	31.709	24.178	24.552	1.00	13.44
ATOM	2051	C	SER	276	29.132	24.114	23.029	1.00	13.89

ATOM	2052	O	SER	276	27.945	24.062	22.700	1.00	11.72
ATOM	2053	N	ALA	277	29.871	25.219	22.863	1.00	14.67
ATOM	2054	CA	ALA	277	29.297	26.471	22.355	1.00	12.08
ATOM	2055	CB	ALA	277	30.361	27.586	22.274	1.00	7.87
ATOM	2056	C	ALA	277	28.558	26.367	21.047	1.00	12.13
ATOM	2057	O	ALA	277	27.812	27.273	20.697	1.00	15.64
ATOM	2058	N	ALA	278	28.766	25.290	20.305	1.00	11.24
ATOM	2059	CA	ALA	278	28.065	25.120	19.049	1.00	8.61
ATOM	2060	CB	ALA	278	28.866	24.273	18.133	1.00	7.17
ATOM	2061	C	ALA	278	26.683	24.482	19.260	1.00	9.06
ATOM	2062	O	ALA	278	25.804	24.623	18.423	1.00	7.76
ATOM	2063	N	SER	279	26.495	23.815	20.392	1.00	11.78
ATOM	2064	CA	SER	279	25.232	23.124	20.692	1.00	14.88
ATOM	2065	CB	SER	279	25.253	22.626	22.132	1.00	13.85
ATOM	2066	OG	SER	279	24.409	21.503	22.298	1.00	17.38
ATOM	2067	C	SER	279	23.951	23.949	20.403	1.00	13.23
ATOM	2068	O	SER	279	23.219	23.631	19.456	1.00	12.01
ATOM	2069	N	VAL	280	23.708	25.004	21.187	1.00	10.69
ATOM	2070	CA	VAL	280	22.528	25.872	20.999	1.00	15.79
ATOM	2071	CB	VAL	280	22.522	27.042	22.022	1.00	13.52
ATOM	2072	CG1	VAL	280	21.414	28.033	21.707	1.00	19.96
ATOM	2073	CG2	VAL	280	22.335	26.500	23.409	1.00	11.23
ATOM	2074	C	VAL	280	22.313	26.404	19.565	1.00	15.50
ATOM	2075	O	VAL	280	21.232	26.219	18.976	1.00	16.82
ATOM	2076	N	PRO	281	23.317	27.099	18.991	1.00	13.89
ATOM	2077	CD	PRO	281	24.578	27.556	19.603	1.00	14.42
ATOM	2078	CA	PRO	281	23.186	27.625	17.630	1.00	12.58
ATOM	2079	CB	PRO	281	24.509	28.380	17.425	1.00	14.89
ATOM	2080	CG	PRO	281	25.466	27.733	18.402	1.00	14.53
ATOM	2081	C	PRO	281	22.974	26.573	16.539	1.00	9.53
ATOM	2082	O	PRO	281	22.506	26.877	15.449	1.00	8.21
ATOM	2083	N	CYS	282	23.420	25.351	16.790	1.00	13.70
ATOM	2084	CA	CYS	282	23.247	24.285	15.806	1.00	11.11
ATOM	2085	CB	CYS	282	24.247	23.148	16.049	1.00	10.59
ATOM	2086	SG	CYS	282	25.817	23.413	15.179	1.00	18.98
ATOM	2087	C	CYS	282	21.808	23.790	15.868	1.00	6.11
ATOM	2088	O	CYS	282	21.195	23.560	14.847	1.00	8.23
ATOM	2089	N	ALA	283	21.288	23.658	17.076	1.00	7.24
ATOM	2090	CA	ALA	283	19.916	23.232	17.299	1.00	11.64
ATOM	2091	CB	ALA	283	19.652	23.110	18.805	1.00	9.49
ATOM	2092	C	ALA	283	18.977	24.260	16.671	1.00	11.80
ATOM	2093	O	ALA	283	18.141	23.929	15.826	1.00	14.43

ATOM	2094	N	LEU	284	19.205	25.527	17.007	1.00	14.54
ATOM	2095	CA	LEU	284	18.411	26.641	16.491	1.00	9.39
ATOM	2096	CB	LEU	284	18.912	27.961	17.099	1.00	14.81
ATOM	2097	CG	LEU	284	18.319	29.271	16.560	1.00	16.67
ATOM	2098	CD1	LEU	284	16.829	29.307	16.849	1.00	19.36
ATOM	2099	CD2	LEU	284	19.031	30.462	17.173	1.00	14.46
ATOM	2100	C	LEU	284	18.414	26.672	14.974	1.00	8.50
ATOM	2101	O	LEU	284	17.352	26.685	14.340	1.00	10.27
ATOM	2102	N	ASP	285	19.590	26.575	14.371	1.00	4.28
ATOM	2103	CA	ASP	285	19.665	26.586	12.939	1.00	9.62
ATOM	2104	CB	ASP	285	21.122	26.550	12.496	1.00	7.21
ATOM	2105	CG	ASP	285	21.269	26.213	11.067	1.00	7.87
ATOM	2106	OD1	ASP	285	21.381	25.022	10.740	1.00	20.73
ATOM	2107	OD2	ASP	285	21.295	27.121	10.245	1.00	11.78
ATOM	2108	C	ASP	285	18.859	25.461	12.257	1.00	12.88
ATOM	2109	O	ASP	285	18.230	25.682	11.220	1.00	15.05
ATOM	2110	N	GLU	286	18.913	24.253	12.816	1.00	15.02
ATOM	2111	CA	GLU	286	18.196	23.121	12.239	1.00	15.09
ATOM	2112	CB	GLU	286	18.555	21.841	12.998	1.00	18.04
ATOM	2113	CG	GLU	286	18.446	20.578	12.142	1.00	23.70
ATOM	2114	CD	GLU	286	17.857	19.385	12.877	1.00	21.23
ATOM	2115	OE1	GLU	286	17.732	18.322	12.234	1.00	27.32
ATOM	2116	OE2	GLU	286	17.512	19.499	14.077	1.00	22.55
ATOM	2117	C	GLU	286	16.696	23.382	12.347	1.00	11.74
ATOM	2118	O	GLU	286	15.968	23.311	11.348	1.00	12.47
ATOM	2119	N	ALA	287	16.268	23.749	13.556	1.00	11.28
ATOM	2120	CA	ALA	287	14.875	24.036	13.848	1.00	12.38
ATOM	2121	CB	ALA	287	14.704	24.322	15.317	1.00	14.28
ATOM	2122	C	ALA	287	14.293	25.178	13.008	1.00	17.55
ATOM	2123	O	ALA	287	13.092	25.164	12.685	1.00	15.40
ATOM	2124	N	VAL	288	15.125	26.166	12.665	1.00	17.23
ATOM	2125	CA	VAL	288	14.672	27.289	11.853	1.00	16.04
ATOM	2126	CB	VAL	288	15.642	28.484	11.954	1.00	15.91
ATOM	2127	CG1	VAL	288	15.296	29.539	10.911	1.00	12.29
ATOM	2128	CG2	VAL	288	15.593	29.064	13.340	1.00	17.34
ATOM	2129	C	VAL	288	14.561	26.880	10.406	1.00	15.39
ATOM	2130	O	VAL	288	13.538	27.080	9.747	1.00	16.13
ATOM	2131	N	ARG	289	15.619	26.279	9.906	1.00	16.39
ATOM	2132	CA	ARG	289	15.638	25.884	8.520	1.00	18.37
ATOM	2133	CB	ARG	289	17.038	25.439	8.121	1.00	21.05
ATOM	2134	CG	ARG	289	18.078	26.537	8.234	1.00	22.63
ATOM	2135	CD	ARG	289	19.346	26.133	7.498	1.00	27.64

ATOM	2136	NE	ARG	289	20.310	27.222	7.453	1.00	22.84
ATOM	2137	CZ	ARG	289	20.700	27.829	6.343	1.00	23.05
ATOM	2138	NH1	ARG	289	21.577	28.824	6.410	1.00	14.01
ATOM	2139	NH2	ARG	289	20.238	27.422	5.165	1.00	21.90
ATOM	2140	C	ARG	289	14.600	24.833	8.153	1.00	18.19
ATOM	2141	O	ARG	289	14.184	24.763	7.007	1.00	20.48
ATOM	2142	N	ASP	290	14.174	24.019	9.113	1.00	18.32
ATOM	2143	CA	ASP	290	13.169	23.006	8.808	1.00	21.51
ATOM	2144	CB	ASP	290	13.623	21.606	9.270	1.00	16.89
ATOM	2145	CG	ASP	290	13.608	21.424	10.775	1.00	19.04
ATOM	2146	OD1	ASP	290	13.097	22.296	11.513	1.00	17.97
ATOM	2147	OD2	ASP	290	14.099	20.360	11.223	1.00	17.99
ATOM	2148	C	ASP	290	11.713	23.373	9.233	1.00	22.90
ATOM	2149	O	ASP	290	10.819	22.515	9.300	1.00	25.20
ATOM	2150	N	GLY	291	11.522	24.653	9.559	1.00	21.95
ATOM	2151	CA	GLY	291	10.225	25.200	9.898	1.00	17.95
ATOM	2152	C	GLY	291	9.587	24.941	11.236	1.00	18.64
ATOM	2153	O	GLY	291	8.388	25.205	11.410	1.00	20.01
ATOM	2154	N	ARG	292	10.330	24.388	12.174	1.00	13.61
ATOM	2155	CA	ARG	292	9.735	24.162	13.469	1.00	19.57
ATOM	2156	CB	ARG	292	10.614	23.256	14.318	1.00	19.91
ATOM	2157	CG	ARG	292	10.464	21.802	13.977	1.00	22.97
ATOM	2158	CD	ARG	292	11.410	20.961	14.786	1.00	17.89
ATOM	2159	NE	ARG	292	12.742	21.003	14.206	1.00	19.08
ATOM	2160	CZ	ARG	292	13.813	20.449	14.754	1.00	14.59
ATOM	2161	NH1	ARG	292	14.977	20.547	14.139	1.00	19.34
ATOM	2162	NH2	ARG	292	13.727	19.809	15.910	1.00	11.75
ATOM	2163	C	ARG	292	9.534	25.511	14.155	1.00	22.11
ATOM	2164	O	ARG	292	8.512	25.736	14.820	1.00	21.04
ATOM	2165	N	ILE	293	10.529	26.391	14.023	1.00	22.14
ATOM	2166	CA	ILE	293	10.454	27.722	14.631	1.00	21.63
ATOM	2167	CB	ILE	293	11.847	28.323	14.920	1.00	20.57
ATOM	2168	CG2	ILE	293	11.695	29.541	15.832	1.00	15.80
ATOM	2169	CG1	ILE	293	12.750	27.299	15.610	1.00	20.64
ATOM	2170	CD1	ILE	293	12.546	27.167	17.088	1.00	23.81
ATOM	2171	C	ILE	293	9.753	28.576	13.585	1.00	20.55
ATOM	2172	O	ILE	293	10.229	28.698	12.454	1.00	19.33
ATOM	2173	N	LYS	294	8.631	29.161	13.975	1.00	20.22
ATOM	2174	CA	LYS	294	7.822	29.972	13.075	1.00	20.01
ATOM	2175	CB	LYS	294	6.487	29.266	12.838	1.00	20.96
ATOM	2176	CG	LYS	294	6.612	28.084	11.886	1.00	25.10
ATOM	2177	CD	LYS	294	7.044	28.584	10.495	1.00	31.79

ATOM	2178	CE	LYS	294	7.467	27.466	9.546	1.00	29.48
ATOM	2179	NZ	LYS	294	6.450	26.386	9.387	1.00	36.09
ATOM	2180	C	LYS	294	7.609	31.404	13.570	1.00	21.80
ATOM	2181	O	LYS	294	7.690	31.688	14.775	1.00	22.68
ATOM	2182	N	PRO	295	7.316	32.329	12.642	1.00	23.99
ATOM	2183	CD	PRO	295	7.086	32.119	11.205	1.00	25.89
ATOM	2184	CA	PRO	295	7.094	33.734	12.983	1.00	21.80
ATOM	2185	CB	PRO	295	6.586	34.332	11.674	1.00	23.62
ATOM	2186	CG	PRO	295	6.030	33.145	10.932	1.00	27.80
ATOM	2187	C	PRO	295	6.128	33.938	14.119	1.00	21.35
ATOM	2188	O	PRO	295	5.108	33.258	14.223	1.00	24.20
ATOM	2189	N	GLY	296	6.527	34.819	15.023	1.00	19.00
ATOM	2190	CA	GLY	296	5.724	35.150	16.177	1.00	14.52
ATOM	2191	C	GLY	296	5.956	34.241	17.342	1.00	14.13
ATOM	2192	O	GLY	296	5.452	34.520	18.432	1.00	11.45
ATOM	2193	N	GLN	297	6.743	33.185	17.154	1.00	13.84
ATOM	2194	CA	GLN	297	6.960	32.249	18.255	1.00	14.39
ATOM	2195	CB	GLN	297	7.154	30.839	17.725	1.00	15.19
ATOM	2196	CG	GLN	297	5.965	30.345	16.897	1.00	20.92
ATOM	2197	CD	GLN	297	6.141	28.924	16.411	1.00	26.01
ATOM	2198	OE1	GLN	297	7.247	28.517	16.052	1.00	23.95
ATOM	2199	NE2	GLN	297	5.057	28.150	16.421	1.00	25.42
ATOM	2200	C	GLN	297	8.043	32.590	19.259	1.00	11.84
ATOM	2201	O	GLN	297	9.064	33.152	18.914	1.00	15.04
ATOM	2202	N	LEU	298	7.774	32.261	20.513	1.00	10.41
ATOM	2203	CA	LEU	298	8.686	32.480	21.614	1.00	13.11
ATOM	2204	CB	LEU	298	7.904	32.717	22.899	1.00	13.45
ATOM	2205	CG	LEU	298	7.306	34.097	23.162	1.00	12.12
ATOM	2206	CD1	LEU	298	6.727	34.151	24.573	1.00	14.98
ATOM	2207	CD2	LEU	298	8.390	35.145	23.030	1.00	17.25
ATOM	2208	C	LEU	298	9.611	31.263	21.800	1.00	16.42
ATOM	2209	O	LEU	298	9.145	30.126	21.980	1.00	12.63
ATOM	2210	N	VAL	299	10.915	31.520	21.800	1.00	16.23
ATOM	2211	CA	VAL	299	11.927	30.480	21.959	1.00	14.86
ATOM	2212	CB	VAL	299	12.835	30.400	20.694	1.00	14.52
ATOM	2213	CG1	VAL	299	13.780	29.211	20.775	1.00	11.79
ATOM	2214	CG2	VAL	299	11.997	30.316	19.434	1.00	9.22
ATOM	2215	C	VAL	299	12.812	30.815	23.162	1.00	16.54
ATOM	2216	O	VAL	299	13.322	31.926	23.254	1.00	18.26
ATOM	2217	N	LEU	300	12.944	29.889	24.108	1.00	14.32
ATOM	2218	CA	LEU	300	13.800	30.108	25.255	1.00	14.44
ATOM	2219	CB	LEU	300	13.135	29.586	26.530	1.00	14.09

ATOM	2220	CG	LEU	300	13.561	30.081	27.921	1.00	11.61
ATOM	2221	CD1	LEU	300	14.844	29.467	28.399	1.00	18.38
ATOM	2222	CD2	LEU	300	13.707	31.570	27.892	1.00	15.09
ATOM	2223	C	LEU	300	15.102	29.354	24.985	1.00	16.76
ATOM	2224	O	LEU	300	15.087	28.130	24.827	1.00	19.37
ATOM	2225	N	LEU	301	16.200	30.087	24.812	1.00	17.19
ATOM	2226	CA	LEU	301	17.510	29.462	24.584	1.00	16.44
ATOM	2227	CB	LEU	301	18.408	30.291	23.634	1.00	18.08
ATOM	2228	CG	LEU	301	17.993	30.892	22.291	1.00	20.00
ATOM	2229	CD1	LEU	301	19.258	31.301	21.531	1.00	18.70
ATOM	2230	CD2	LEU	301	17.164	29.909	21.467	1.00	19.29
ATOM	2231	C	LEU	301	18.192	29.446	25.937	1.00	14.77
ATOM	2232	O	LEU	301	18.120	30.431	26.664	1.00	15.96
ATOM	2233	N	GLU	302	18.820	28.338	26.311	1.00	13.42
ATOM	2234	CA	GLU	302	19.538	28.291	27.581	1.00	12.45
ATOM	2235	CB	GLU	302	18.605	28.028	28.746	1.00	13.76
ATOM	2236	CG	GLU	302	17.468	27.134	28.407	1.00	20.41
ATOM	2237	CD	GLU	302	17.555	25.805	29.094	1.00	21.10
ATOM	2238	OE1	GLU	302	17.743	24.793	28.377	1.00	18.40
ATOM	2239	OE2	GLU	302	17.404	25.778	30.338	1.00	14.37
ATOM	2240	C	GLU	302	20.688	27.290	27.522	1.00	10.32
ATOM	2241	O	GLU	302	20.782	26.517	26.578	1.00	9.45
ATOM	2242	N	ALA	303	21.588	27.353	28.493	1.00	12.79
ATOM	2243	CA	ALA	303	22.761	26.483	28.498	1.00	14.04
ATOM	2244	CB	ALA	303	23.676	26.825	27.323	1.00	16.61
ATOM	2245	C	ALA	303	23.523	26.583	29.802	1.00	14.46
ATOM	2246	O	ALA	303	23.401	27.572	30.517	1.00	17.71
ATOM	2247	N	PHE	304	24.334	25.567	30.088	1.00	14.66
ATOM	2248	CA	PHE	304	25.107	25.471	31.332	1.00	17.36
ATOM	2249	CB	PHE	304	24.396	24.476	32.274	1.00	14.19
ATOM	2250	CG	PHE	304	24.886	24.493	33.699	1.00	14.80
ATOM	2251	CD1	PHE	304	25.958	23.714	34.093	1.00	13.55
ATOM	2252	CD2	PHE	304	24.244	25.267	34.654	1.00	18.11
ATOM	2253	CE1	PHE	304	26.389	23.701	35.417	1.00	13.17
ATOM	2254	CE2	PHE	304	24.663	25.265	35.983	1.00	19.56
ATOM	2255	CZ	PHE	304	25.743	24.475	36.366	1.00	18.61
ATOM	2256	C	PHE	304	26.495	24.936	30.934	1.00	18.48
ATOM	2257	O	PHE	304	26.597	24.072	30.048	1.00	19.82
ATOM	2258	N	GLY	305	27.546	25.411	31.603	1.00	20.16
ATOM	2259	CA	GLY	305	28.889	24.966	31.272	1.00	18.15
ATOM	2260	C	GLY	305	29.950	25.008	32.367	1.00	15.06
ATOM	2261	O	GLY	305	29.701	25.407	33.507	1.00	11.78

ATOM	2262	N	GLY	306	31.145	24.556	31.988	1.00	16.84
ATOM	2263	CA	GLY	306	32.290	24.514	32.875	1.00	16.87
ATOM	2264	C	GLY	306	32.529	25.856	33.525	1.00	19.36
ATOM	2265	O	GLY	306	32.236	26.899	32.934	1.00	17.63
ATOM	2266	N	GLY	307	33.116	25.809	34.717	1.00	20.98
ATOM	2267	CA	GLY	307	33.378	26.982	35.530	1.00	21.06
ATOM	2268	C	GLY	307	32.140	27.147	36.379	1.00	21.86
ATOM	2269	O	GLY	307	32.190	27.379	37.595	1.00	19.95
ATOM	2270	N	PHE	308	31.057	26.770	35.706	1.00	23.81
ATOM	2271	CA	PHE	308	29.674	26.803	36.100	1.00	19.00
ATOM	2272	CB	PHE	308	29.392	26.343	37.514	1.00	18.97
ATOM	2273	CG	PHE	308	29.241	24.833	37.628	1.00	19.29
ATOM	2274	CD1	PHE	308	28.417	24.272	38.600	1.00	20.57
ATOM	2275	CD2	PHE	308	29.990	23.984	36.809	1.00	18.14
ATOM	2276	CE1	PHE	308	28.349	22.887	38.767	1.00	23.13
ATOM	2277	CE2	PHE	308	29.933	22.612	36.959	1.00	19.08
ATOM	2278	CZ	PHE	308	29.113	22.056	37.943	1.00	18.75
ATOM	2279	C	PHE	308	29.188	28.172	35.759	1.00	17.75
ATOM	2280	O	PHE	308	29.386	29.143	36.484	1.00	20.32
ATOM	2281	N	THR	309	28.861	28.239	34.485	1.00	13.63
ATOM	2282	CA	THR	309	28.318	29.395	33.852	1.00	15.39
ATOM	2283	CB	THR	309	29.146	29.774	32.631	1.00	16.38
ATOM	2284	OG1	THR	309	29.426	28.599	31.848	1.00	16.86
ATOM	2285	CG2	THR	309	30.429	30.461	33.037	1.00	14.89
ATOM	2286	C	THR	309	26.987	28.872	33.351	1.00	17.86
ATOM	2287	O	THR	309	26.761	27.649	33.301	1.00	17.08
ATOM	2288	N	TRP	310	26.099	29.791	32.998	1.00	18.06
ATOM	2289	CA	TRP	310	24.808	29.446	32.441	1.00	13.94
ATOM	2290	CB	TRP	310	23.977	28.529	33.370	1.00	12.43
ATOM	2291	CG	TRP	310	23.549	29.085	34.688	1.00	2.00
ATOM	2292	CD2	TRP	310	24.275	29.040	35.911	1.00	4.78
ATOM	2293	CE2	TRP	310	23.452	29.617	36.910	1.00	2.90
ATOM	2294	CE3	TRP	310	25.542	28.561	36.272	1.00	8.59
ATOM	2295	CD1	TRP	310	22.348	29.677	34.975	1.00	4.17
ATOM	2296	NE1	TRP	310	22.283	29.997	36.312	1.00	2.00
ATOM	2297	CZ2	TRP	310	23.857	29.727	38.238	1.00	6.86
ATOM	2298	CZ3	TRP	310	25.938	28.671	37.577	1.00	10.06
ATOM	2299	CH2	TRP	310	25.100	29.251	38.554	1.00	12.02
ATOM	2300	C	TRP	310	24.074	30.711	32.071	1.00	15.68
ATOM	2301	O	TRP	310	24.248	31.749	32.708	1.00	16.36
ATOM	2302	N	GLY	311	23.265	30.620	31.030	1.00	13.89
ATOM	2303	CA	GLY	311	22.519	31.769	30.594	1.00	16.13

ATOM	2304	C	GLY	311	21.326	31.362	29.771	1.00	15.07
ATOM	2305	O	GLY	311	21.136	30.189	29.474	1.00	13.05
ATOM	2306	N	SER	312	20.545	32.358	29.376	1.00	18.06
ATOM	2307	CA	SER	312	19.350	32.163	28.566	1.00	16.97
ATOM	2308	CB	SER	312	18.155	31.953	29.471	1.00	16.39
ATOM	2309	OG	SER	312	17.825	33.184	30.094	1.00	18.87
ATOM	2310	C	SER	312	19.080	33.416	27.742	1.00	16.29
ATOM	2311	O	SER	312	19.597	34.500	28.061	1.00	14.11
ATOM	2312	N	ALA	313	18.276	33.256	26.694	1.00	13.79
ATOM	2313	CA	ALA	313	17.856	34.353	25.832	1.00	16.64
ATOM	2314	CB	ALA	313	18.736	34.468	24.616	1.00	12.04
ATOM	2315	C	ALA	313	16.422	34.045	25.401	1.00	17.22
ATOM	2316	O	ALA	313	16.141	32.947	24.902	1.00	19.15
ATOM	2317	N	LEU	314	15.504	34.963	25.694	1.00	15.51
ATOM	2318	CA	LEU	314	14.116	34.794	25.298	1.00	14.99
ATOM	2319	CB	LEU	314	13.155	35.376	26.338	1.00	10.70
ATOM	2320	CG	LEU	314	11.645	35.334	25.994	1.00	14.78
ATOM	2321	CD1	LEU	314	11.173	33.977	25.490	1.00	12.46
ATOM	2322	CD2	LEU	314	10.881	35.713	27.235	1.00	8.08
ATOM	2323	C	LEU	314	14.027	35.562	24.021	1.00	12.89
ATOM	2324	O	LEU	314	14.264	36.765	24.009	1.00	13.95
ATOM	2325	N	VAL	315	13.725	34.867	22.939	1.00	13.47
ATOM	2326	CA	VAL	315	13.654	35.493	21.637	1.00	16.70
ATOM	2327	CB	VAL	315	14.764	34.934	20.697	1.00	18.11
ATOM	2328	CG1	VAL	315	14.801	35.704	19.362	1.00	20.21
ATOM	2329	CG2	VAL	315	16.129	34.951	21.393	1.00	17.86
ATOM	2330	C	VAL	315	12.306	35.264	20.961	1.00	18.30
ATOM	2331	O	VAL	315	11.703	34.195	21.097	1.00	17.75
ATOM	2332	N	ARG	316	11.839	36.273	20.232	1.00	20.08
ATOM	2333	CA	ARG	316	10.587	36.179	19.500	1.00	18.30
ATOM	2334	CB	ARG	316	9.572	37.247	19.928	1.00	21.87
ATOM	2335	CG	ARG	316	8.485	37.515	18.872	1.00	23.25
ATOM	2336	CD	ARG	316	7.168	37.937	19.469	1.00	26.48
ATOM	2337	NE	ARG	316	6.508	36.802	20.094	1.00	30.98
ATOM	2338	CZ	ARG	316	5.699	36.886	21.142	1.00	33.22
ATOM	2339	NH1	ARG	316	5.155	35.783	21.636	1.00	35.19
ATOM	2340	NH2	ARG	316	5.428	38.064	21.696	1.00	33.36
ATOM	2341	C	ARG	316	10.857	36.274	18.020	1.00	18.26
ATOM	2342	O	ARG	316	11.285	37.311	17.489	1.00	18.16
ATOM	2343	N	PHE	317	10.659	35.146	17.363	1.00	16.08
ATOM	2344	CA	PHE	317	10.837	35.077	15.941	1.00	17.41
ATOM	2345	CB	PHE	317	11.179	33.636	15.548	1.00	13.99

ATOM	2346	CG	PHE	317	12.544	33.217	16.015	1.00	11.13
ATOM	2347	CD1	PHE	317	12.741	32.768	17.313	1.00	11.04
ATOM	2348	CD2	PHE	317	13.643	33.364	15.196	1.00	10.71
ATOM	2349	CE1	PHE	317	14.020	32.478	17.791	1.00	8.00
ATOM	2350	CE2	PHE	317	14.921	33.076	15.664	1.00	8.30
ATOM	2351	CZ	PHE	317	15.104	32.635	16.962	1.00	6.94
ATOM	2352	C	PHE	317	9.546	35.612	15.317	1.00	17.20
ATOM	2353	O	PHE	317	9.424	35.703	14.083	1.00	20.94
ATOM	2354	OT	PHE	317	8.691	36.053	16.103	1.00	20.61
ATOM	2355	AO6	COA	350	25.886	9.541	33.559	1.00	44.81
ATOM	2356	AP2	COA	350	25.938	8.466	34.779	1.00	48.57
ATOM	2357	AO4	COA	350	25.984	7.033	34.193	1.00	51.29
ATOM	2358	AO5	COA	350	24.688	8.689	35.674	1.00	47.15
ATOM	2359	AO3	COA	350	27.383	8.800	35.491	1.00	50.47
ATOM	2360	AP1	COA	350	27.959	7.998	36.780	1.00	49.65
ATOM	2361	AO1	COA	350	26.887	7.993	37.879	1.00	47.38
ATOM	2362	AO2	COA	350	29.237	8.653	37.296	1.00	49.71
ATOM	2363	AO5*	COA	350	28.201	6.460	36.164	1.00	45.70
ATOM	2364	AC5*	COA	350	27.718	5.279	36.817	1.00	39.18
ATOM	2365	AC4*	COA	350	28.472	4.019	36.378	1.00	37.65
ATOM	2366	AO4*	COA	350	28.702	4.012	34.931	1.00	35.45
ATOM	2367	AC3*	COA	350	29.898	3.856	36.965	1.00	37.54
ATOM	2368	AO3*	COA	350	30.205	2.474	37.178	1.00	43.89
ATOM	2369	AP3*	COA	350	31.518	2.029	38.160	1.00	43.95
ATOM	2370	AO7	COA	350	32.888	2.220	37.337	1.00	45.61
ATOM	2371	AO8	COA	350	31.503	3.018	39.420	1.00	42.03
ATOM	2372	AO9	COA	350	31.296	0.500	38.522	1.00	45.98
ATOM	2373	AC2*	COA	350	30.688	4.469	35.850	1.00	32.65
ATOM	2374	AO2*	COA	350	32.112	4.433	35.932	1.00	24.96
ATOM	2375	AC1*	COA	350	30.098	3.815	34.584	1.00	27.72
ATOM	2376	AN9	COA	350	30.429	4.564	33.382	1.00	20.99
ATOM	2377	AC8	COA	350	30.840	5.878	33.186	1.00	21.31
ATOM	2378	AN7	COA	350	30.992	6.002	31.788	1.00	18.53
ATOM	2379	AC5	COA	350	30.700	4.873	31.234	1.00	12.67
ATOM	2380	AC6	COA	350	30.698	4.501	29.898	1.00	12.21
ATOM	2381	AN6	COA	350	31.039	5.381	28.963	1.00	15.81
ATOM	2382	AN1	COA	350	30.338	3.249	29.672	1.00	17.72
ATOM	2383	AC2	COA	350	30.014	2.442	30.654	1.00	11.38
ATOM	2384	AN3	COA	350	29.997	2.743	31.973	1.00	15.08
ATOM	2385	AC4	COA	350	30.341	3.964	32.268	1.00	15.56
ATOM	2386	PC3	COA	350	27.231	15.743	29.062	1.00	45.84
ATOM	2387	PN4	COA	350	27.451	15.602	30.542	1.00	45.69

ATOM	2388	PC5	COA	350	27.257	16.596	31.365	1.00	49.27
ATOM	2389	PO5	COA	350	26.878	17.743	30.981	1.00	51.60
ATOM	2390	PC6	COA	350	27.488	16.290	32.811	1.00	45.37
ATOM	2391	PC7	COA	350	26.171	15.799	33.375	1.00	42.28
ATOM	2392	PN8	COA	350	26.292	14.370	33.634	1.00	39.66
ATOM	2393	PC9	COA	350	26.176	13.440	32.669	1.00	37.37
ATOM	2394	PO9	COA	350	25.948	13.691	31.437	1.00	31.87
ATOM	2395	PC10	COA	350	26.320	11.982	33.151	1.00	38.48
ATOM	2396	PO10	COA	350	26.849	11.940	34.496	1.00	37.07
ATOM	2397	PC11	COA	350	27.172	11.057	32.178	1.00	40.66
ATOM	2398	PC13	COA	350	28.667	11.476	32.189	1.00	40.01
ATOM	2399	PC14	COA	350	26.632	11.101	30.745	1.00	38.14
ATOM	2400	PC12	COA	350	26.933	9.588	32.579	1.00	41.59
ATOM	2401	OH2	TIP	401	32.739	20.778	21.082	1.00	6.13
ATOM	2402	OH2	TIP	402	40.193	28.723	23.028	1.00	7.82
ATOM	2403	OH2	TIP	403	40.425	39.332	19.391	1.00	5.26
ATOM	2404	OH2	TIP	404	42.568	30.848	17.272	1.00	8.88
ATOM	2405	OH2	TIP	405	25.197	19.541	20.695	1.00	7.18
ATOM	2406	OH2	TIP	406	36.043	23.437	8.684	1.00	7.41
ATOM	2407	OH2	TIP	407	25.782	28.092	24.885	1.00	10.02
ATOM	2408	OH2	TIP	408	32.653	29.878	25.255	1.00	7.69
ATOM	2409	OH2	TIP	409	16.235	18.492	16.016	1.00	10.29
ATOM	2410	OH2	TIP	410	21.771	9.323	15.459	1.00	8.15
ATOM	2411	OH2	TIP	411	43.051	38.507	18.774	1.00	9.03
ATOM	2412	OH2	TIP	412	14.701	37.320	16.436	1.00	8.19
ATOM	2413	OH2	TIP	413	28.861	13.891	8.233	1.00	9.00
ATOM	2414	OH2	TIP	414	41.223	27.867	15.967	1.00	11.56
ATOM	2415	OH2	TIP	415	23.730	20.600	18.316	1.00	13.01
ATOM	2416	OH2	TIP	416	17.284	42.986	21.533	1.00	8.36
ATOM	2417	OH2	TIP	417	33.179	27.419	24.805	1.00	11.91
ATOM	2418	OH2	TIP	418	25.671	25.895	22.891	1.00	18.95
ATOM	2419	OH2	TIP	419	40.481	24.653	17.206	1.00	12.51
ATOM	2420	OH2	TIP	420	16.912	14.677	16.591	1.00	18.16
ATOM	2421	OH2	TIP	421	39.082	14.281	18.035	1.00	16.39
ATOM	2422	OH2	TIP	422	30.257	42.934	2.005	1.00	14.38
ATOM	2423	OH2	TIP	423	12.444	38.069	15.020	1.00	29.63
ATOM	2424	OH2	TIP	424	17.417	41.775	25.024	1.00	8.12
ATOM	2425	OH2	TIP	425	9.325	39.936	16.285	1.00	22.01
ATOM	2426	OH2	TIP	426	37.798	2.133	28.936	1.00	14.22
ATOM	2427	OH2	TIP	427	35.713	7.379	15.847	1.00	15.84
ATOM	2428	OH2	TIP	428	43.029	37.255	21.632	1.00	12.51
ATOM	2429	OH2	TIP	429	23.022	1.240	33.691	1.00	16.49

ATOM	2430	OH2 TIP	430	42.504	24.999	22.285	1.00	15.55
ATOM	2431	OH2 TIP	431	33.221	23.808	36.288	1.00	15.63
ATOM	2432	OH2 TIP	432	16.019	14.393	13.654	1.00	15.27
ATOM	2433	OH2 TIP	433	42.288	27.644	11.719	1.00	12.08
ATOM	2434	OH2 TIP	434	30.775	18.714	6.816	1.00	23.32
ATOM	2435	OH2 TIP	435	55.943	19.213	34.516	1.00	18.62
ATOM	2436	OH2 TIP	436	16.804	21.731	9.272	1.00	18.81
ATOM	2437	OH2 TIP	437	23.406	25.655	7.939	1.00	17.69
ATOM	2438	OH2 TIP	438	19.328	8.661	15.389	1.00	22.78
ATOM	2439	OH2 TIP	439	35.317	11.047	33.431	1.00	23.44
ATOM	2440	OH2 TIP	440	42.289	22.468	16.902	1.00	12.30
ATOM	2441	OH2 TIP	441	11.909	16.873	20.447	1.00	16.74
ATOM	2442	OH2 TIP	442	14.331	16.465	15.173	1.00	23.89
ATOM	2443	OH2 TIP	443	30.873	6.160	10.831	1.00	19.04
ATOM	2444	OH2 TIP	444	37.082	12.956	34.438	1.00	18.20
ATOM	2445	OH2 TIP	445	26.671	2.250	17.081	1.00	18.63
ATOM	2446	OH2 TIP	446	13.397	37.557	37.001	1.00	23.34
ATOM	2447	OH2 TIP	447	17.632	8.831	17.371	1.00	21.31
ATOM	2448	OH2 TIP	448	35.994	23.793	6.139	1.00	16.90
ATOM	2449	OH2 TIP	449	35.670	15.068	9.871	1.00	22.32
ATOM	2450	OH2 TIP	450	34.904	3.328	11.240	1.00	28.10
ATOM	2451	OH2 TIP	451	4.272	39.112	28.884	1.00	28.92
ATOM	2452	OH2 TIP	452	13.637	17.655	18.586	1.00	21.23
ATOM	2453	OH2 TIP	453	29.211	-1.173	29.600	1.00	21.29
ATOM	2454	OH2 TIP	454	5.388	23.060	18.820	1.00	30.16
ATOM	2455	OH2 TIP	455	25.415	-0.815	17.135	1.00	25.12
ATOM	2456	OH2 TIP	456	30.610	41.422	0.004	1.00	25.95
ATOM	2457	OH2 TIP	457	37.712	33.242	24.964	1.00	30.82
ATOM	2458	OH2 TIP	458	23.287	40.033	33.321	1.00	23.08
ATOM	2459	OH2 TIP	459	13.386	43.720	25.414	1.00	23.98
ATOM	2460	OH2 TIP	460	5.686	25.539	15.949	1.00	31.61
ATOM	2461	OH2 TIP	461	40.306	50.216	10.961	1.00	34.22
ATOM	2462	OH2 TIP	462	18.386	8.725	20.941	1.00	19.13
ATOM	2463	OH2 TIP	463	41.960	25.698	24.824	1.00	33.72
ATOM	2464	OH2 TIP	464	1.344	38.797	36.287	1.00	28.01
ATOM	2465	OH2 TIP	465	2.391	29.118	17.719	1.00	27.99
ATOM	2466	OH2 TIP	466	34.205	5.356	9.578	1.00	37.54
ATOM	2467	OH2 TIP	467	17.894	21.768	29.178	1.00	28.28
ATOM	2468	OH2 TIP	468	14.030	29.925	42.735	1.00	41.02
ATOM	2469	OH2 TIP	469	41.158	2.037	32.904	1.00	32.96
ATOM	2470	OH2 TIP	470	6.019	20.443	36.177	1.00	43.75
ATOM	2471	OH2 TIP	471	7.910	48.000	19.423	1.00	25.11

ATOM	2472	OH2 TIP	472	22.126	−0.650	28.675	1.00	46.89
ATOM	2473	OH2 TIP	473	18.767	48.229	11.224	1.00	25.64
ATOM	2474	OH2 TIP	474	16.373	12.109	20.404	1.00	35.61
ATOM	2475	OH2 TIP	475	6.034	24.718	13.461	1.00	34.08
ATOM	2476	OH2 TIP	476	44.708	23.715	22.552	1.00	26.48
ATOM	2477	OH2 TIP	477	19.951	31.139	38.216	1.00	37.71
ATOM	2478	OH2 TIP	478	34.322	6.313	12.235	1.00	42.47
ATOM	2479	OH2 TIP	479	48.186	1.784	37.184	1.00	49.42
ATOM	2480	OH2 TIP	480	32.095	3.038	10.879	1.00	51.79
ATOM	2481	OH2 TIP	481	44.466	27.841	13.227	1.00	16.03
ATOM	2482	OH2 TIP	482	27.484	33.639	2.464	1.00	13.69
ATOM	2483	OH2 TIP	483	38.693	13.366	28.908	1.00	23.41
ATOM	2484	OH2 TIP	484	28.339	−1.777	31.976	1.00	19.96
ATOM	2485	OH2 TIP	485	30.257	10.937	36.985	1.00	14.60
ATOM	2486	OH2 TIP	486	22.392	29.867	15.052	1.00	16.50
ATOM	2487	OH2 TIP	487	22.530	47.465	25.250	1.00	22.30
ATOM	2488	OH2 TIP	488	27.307	46.593	11.111	1.00	12.20
ATOM	2489	OH2 TIP	489	36.699	21.133	5.895	1.00	28.38
ATOM	2490	OH2 TIP	490	41.530	47.656	9.217	1.00	47.85
ATOM	2491	OH2 TIP	491	31.190	48.262	14.563	1.00	21.24
ATOM	2492	OH2 TIP	492	21.574	19.119	28.338	1.00	23.00
ATOM	2493	OH2 TIP	493	23.625	3.862	18.827	1.00	19.68
ATOM	2494	OH2 TIP	494	44.193	21.572	13.194	1.00	32.17
ATOM	2495	OH2 TIP	495	33.054	8.419	34.905	1.00	25.67
ATOM	2496	OH2 TIP	496	23.091	22.113	29.065	1.00	24.17
ATOM	2497	OH2 TIP	497	22.010	21.630	43.009	1.00	25.27
ATOM	2498	OH2 TIP	498	26.908	44.611	−4.102	1.00	23.82
ATOM	2499	OH2 TIP	499	28.158	51.132	22.134	1.00	34.49
ATOM	2500	OH2 TIP	500	7.541	18.293	41.693	1.00	38.20
ATOM	2501	OH2 TIP	501	22.845	28.034	−1.332	1.00	35.03
ATOM	2502	OH2 TIP	502	33.400	44.519	7.752	1.00	18.71
ATOM	2503	OH2 TIP	503	14.120	40.601	10.392	1.00	19.52
ATOM	2504	OH2 TIP	504	24.993	−0.839	33.189	1.00	19.82
ATOM	2505	OH2 TIP	505	19.380	44.275	2.230	1.00	35.69
ATOM	2506	OH2 TIP	506	25.581	7.359	28.152	1.00	42.82
ATOM	2507	OH2 TIP	507	34.972	23.548	42.387	1.00	44.83
ATOM	2508	OH2 TIP	508	33.880	−2.370	24.815	1.00	28.71
ATOM	2509	OH2 TIP	509	36.581	28.702	39.621	1.00	21.27
ATOM	2510	OH2 TIP	510	20.558	6.444	14.424	1.00	25.39
ATOM	2511	OH2 TIP	511	19.053	8.929	28.653	1.00	39.86
ATOM	2512	OH2 TIP	512	38.167	−1.691	26.695	1.00	30.97
ATOM	2513	OH2 TIP	513	39.083	15.753	15.847	1.00	19.24

ATOM	2514	OH2	TIP	514	11.971	18.172	40.775	1.00	25.48
ATOM	2515	OH2	TIP	515	29.878	8.954	31.087	1.00	42.86
ATOM	2516	OH2	TIP	516	29.767	35.466	39.661	1.00	12.82
ATOM	2517	OH2	TIP	517	40.156	50.729	5.798	1.00	41.10
ATOM	2518	OH2	TIP	518	44.731	9.030	26.464	1.00	45.66
ATOM	2519	OH2	TIP	519	9.612	16.695	19.098	1.00	37.32
ATOM	2520	OH2	TIP	520	14.209	30.245	39.994	1.00	38.79
ATOM	2521	OH2	TIP	521	42.239	22.567	19.803	1.00	51.05
ATOM	2522	OH2	TIP	522	36.850	3.005	17.027	1.00	32.73
ATOM	2523	OH2	TIP	523	30.825	1.404	41.634	1.00	31.19
ATOM	2524	OH2	TIP	524	28.055	20.408	29.933	1.00	34.73
ATOM	2525	OH2	TIP	525	30.400	5.080	7.908	1.00	17.69
ATOM	2526	OH2	TIP	526	17.837	0.157	25.180	1.00	37.03
ATOM	2527	OH2	TIP	527	25.355	-2.314	23.719	1.00	20.78
ATOM	2528	OH2	TIP	528	20.043	-1.804	27.322	1.00	36.30
ATOM	2529	OH2	TIP	529	35.583	34.425	1.946	1.00	45.58
ATOM	2530	OH2	TIP	530	30.006	36.202	7.102	1.00	45.30
ATOM	2531	OH2	TIP	531	22.795	28.577	2.321	1.00	20.56
ATOM	2532	OH2	TIP	532	32.671	38.838	-2.697	1.00	41.60
ATOM	2533	OH2	TIP	533	35.499	38.087	-1.952	1.00	32.83
ATOM	2534	OH2	TIP	534	36.066	40.743	-2.807	1.00	37.34
ATOM	2535	OH2	TIP	535	36.079	39.159	0.624	1.00	48.02
ATOM	2536	OH2	TIP	536	43.162	42.111	4.093	1.00	17.43
ATOM	2537	OH2	TIP	537	20.459	41.052	26.649	1.00	21.24
ATOM	2538	OH2	TIP	538	18.115	41.653	28.003	1.00	33.00
ATOM	2539	OH2	TIP	539	26.361	49.904	13.174	1.00	40.31
ATOM	2540	OH2	TIP	540	43.588	16.720	23.641	1.00	30.33
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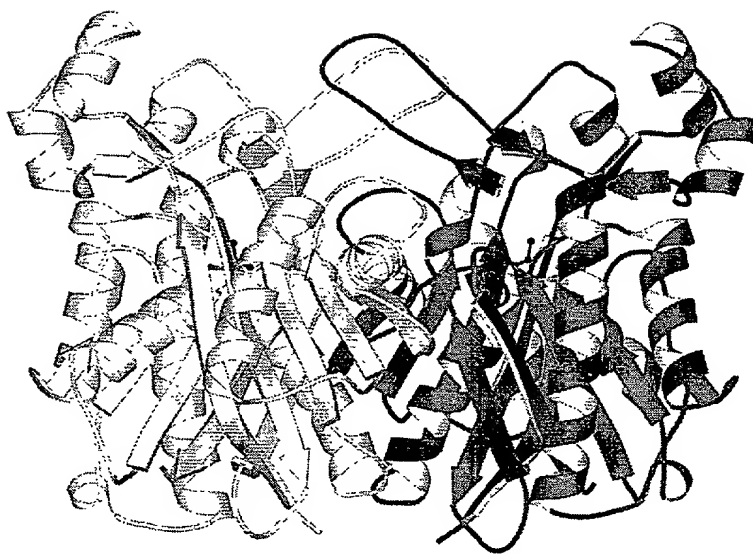
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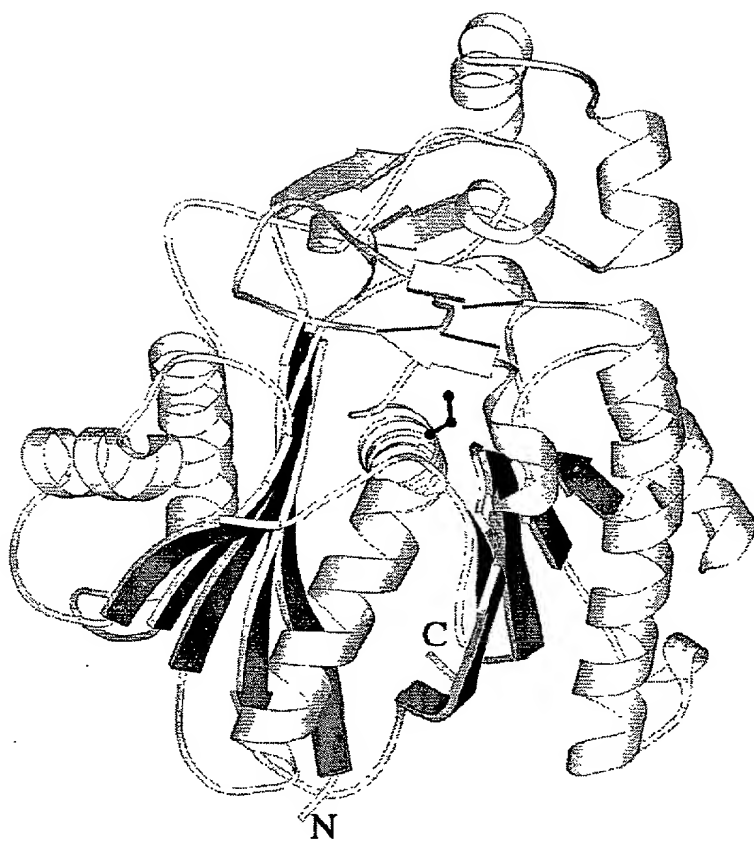
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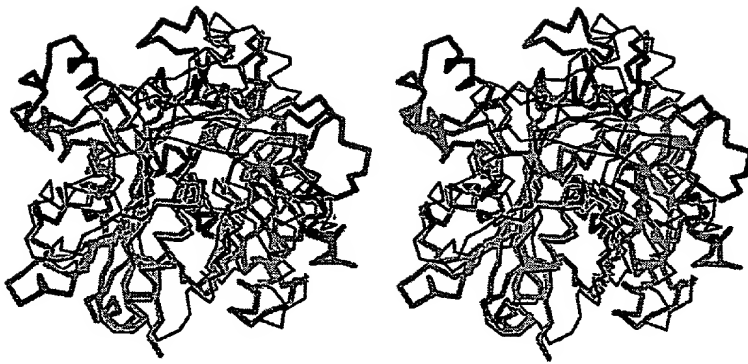
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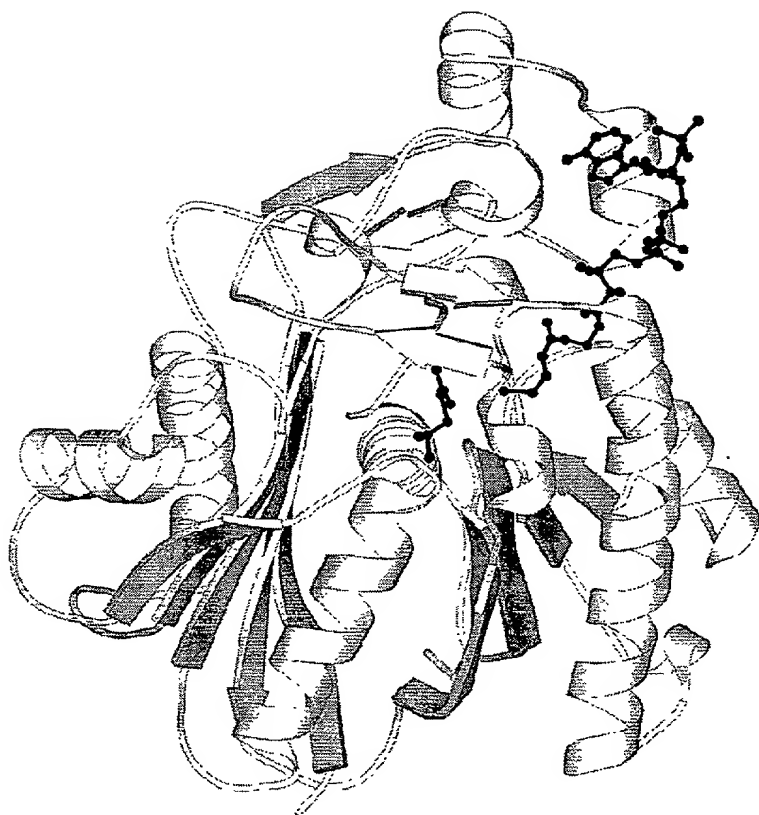
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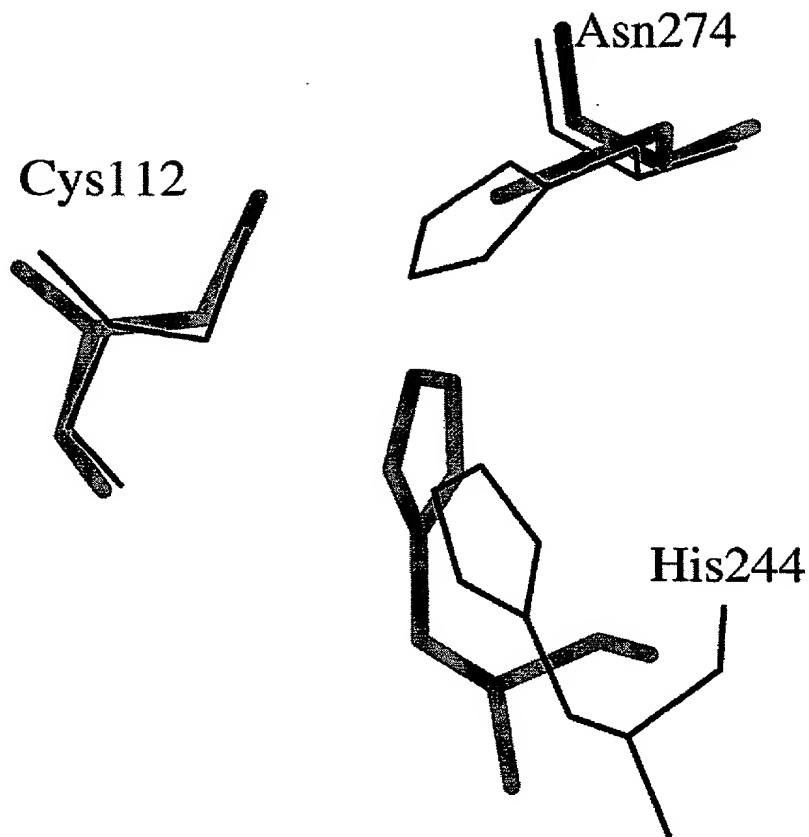
Fig. 7

DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

"Novel FabH Enzyme Compositions Capable, of Binding to Said Enzyme and Methods of Use Thereof"

the specification of which (check one)
[ ]   is attached hereto.
[X]   was filed on   **7 June 2000**   as Serial No.   **PCT/US00/15659**
        and was amended on   (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below any foreign application for patent or Inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Number	Country	Filing Date	Priority Claimed

I hereby claim the benefit under Title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below.

Application Number	Filing Date
60/138,124	7 June 1999

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

Serial No.	Filing Date	Status

I hereby appoint the practitioners associated with the Customer Number provided below to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and direct that all correspondence be addressed to that Customer Number:

Customer Number 20462.

Address all correspondence and telephone calls to Edwrad R. Gimmi, SmithKline Beecham Corporation, Corporate Intellectual Property-U.S., UW2220, P.O. Box 1539, King of Prussia, Pennsylvania 19406-0939, whose telephone number is 610-270-4478.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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Inventor's Signature: _Cheryl Ann Janson_   Date: _July 21, 2000_

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                        P.O. Box 1539
                        King of Prussia, Pennsylvania 19406-0939

Full Name of Inventor: Xiayang QIU

Inventor's Signature: _____   Date: _July 21, 2000_

Residence: 2607 Llody Lane, Audubon, Pennsylvania 19403

Citizenship: Peoples republic of China

Post Office Address: SmithKline Beecham Corporation
                        Corporate Intellectual Property - UW2220
                        P.O. Box 1539
                        King of Prussia, Pennsylvania 19406-0939

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      QIU, XIAYANG

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      BINDING TO SAID ENZYME AND METHODS OF USE THEREOF

<130> P50937

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        35   40   45
Glu Thr Val Ser Thr Met Gly Phe Glu Ala Ala Thr Arg Ala Ile Glu
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Met Ala Gly Ile Glu Lys Asp Gln Ile Gly Leu Ile Val Val Ala Thr
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Thr Ser Ala Thr His Ala Phe Pro Ser Ala Ala Cys Gln Ile Gln Ser

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Thr His Leu His Ala Asp Gly Ser Tyr Gly Glu Leu Leu Thr Leu Pro
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Leu Val Pro His Gln Ala Asn Leu Arg Ile Ile Ser Ala Thr Ala Lys
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